







**Mentech**  
**铭普光磁**

# LAN Transformer Module Catalog

2018 A0

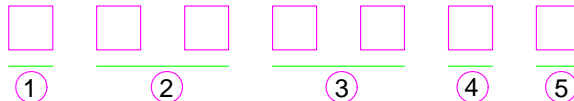
**Dedication to Excellence**  
**铭诚于心 普实于行**

Mentech LAN discrete magnetic transformers are designed and manufactured to comply with IEEE802.3 and ANSI X3.263 standards. Products include 10/100 Base-T, 10/100/1000Base-T, 2.5G/5G Base-T, 10G Base-T, Power Over Ethernet and ESD/Surge protected transformer modules. These products are widely used in internet equipments, broadband terminals, computer, voice and multimedia equipments, etc.

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## Definition of Part Number

 Part Name:



 Description

① Product type

|    |                     |
|----|---------------------|
| H  | 10/100 Base-T       |
| G  | 100/1000 Base-T     |
| M  | 10G Base-T          |
| TE | T1/E1/CEPT/ISDN PRI |

② Number of pins

|        |
|--------|
| 4 Pin  |
| 16 Pin |
| .....  |
| .....  |
| .....  |

③ Serial Number


|       |
|-------|
| 1     |
| 2     |
| 3     |
| ..... |

④ Package

|   |   |
|---|---|
| D | Through Hole                            |
| C | Surface Mount(SMT) Open header type     |
| A | Surface Mount(SMT) Assembly header type |

⑤ Extracode

|   |  |
|---|--|
| G | RoHS or Halogen free                   |
| E | Operation Temperature,Industrial Grade |

 Example: H1601CG

H1601CG has the characteristics of a single port, 16pin surface mount , open header package and halogen free.

| Manufacturer          | IC Part Number               | 10 Base-T | 10/100 Base-T |         |         | 100/1000 Base-T |          | T1/E1/CEPT/ISDN |          |
|-----------------------|------------------------------|-----------|---------------|---------|---------|-----------------|----------|-----------------|----------|
|                       |                              | Single    | Single        | Dual    | Quad    | Single          | Dual     | Single          | Dual     |
| Cirrus Logic          | CS8900A-CQ3                  | T1602CG   |               |         |         |                 |          |                 |          |
|                       | CS8952                       |           | H1601CE       |         |         |                 |          |                 |          |
|                       | CS8952T                      |           | H1601CE       | H2401CG |         |                 |          |                 |          |
| Cirrus logic(Crystal) | 61577 61884 61584/84A        |           |               |         |         |                 |          | TE1203CG        |          |
|                       | 61304A/5A/535A/574A,/75      |           |               |         |         |                 |          | TE1204CG        |          |
|                       | 61304A/5A/535A/574A,/75      |           |               |         |         |                 |          | TE1208CE        |          |
|                       | 6,131,061,581                |           |               |         |         |                 |          | TE1208CE        |          |
|                       | 61310 61583                  |           |               |         |         |                 |          | TE1602CG        |          |
| 61310 61581           |                              |           |               |         |         |                 | TE1602CE |                 |          |
|                       | LXT914 LXT915 LXT916         | T1620CG   |               |         |         |                 |          |                 |          |
|                       | LXT917 LXT918 LXT944         | T1621CG   |               |         |         |                 |          |                 |          |
|                       | 82551/2551QM/551ER           |           |               | H2401CG | H4001CG |                 |          |                 |          |
|                       | 82559/559ER                  |           | H1601CE       |         | H4001CE |                 |          |                 |          |
|                       | LXT970A/971(ALC)/972A        |           |               |         |         |                 |          |                 |          |
| Intel                 | LXT972                       |           | H1606CG       |         |         |                 |          |                 |          |
|                       | 82540/ 541/544/543           |           |               |         |         | G2436CG         | G4801CG  |                 |          |
|                       | 82544/545/546/547            |           |               |         |         |                 | G5002CG  |                 |          |
|                       | 82562                        |           |               |         |         |                 | G4830CG  |                 |          |
|                       | 82576EB                      |           |               |         |         | G2436CG         |          | TE1208CE        |          |
|                       | LXT350,LXT351,LXT359         |           |               |         |         |                 |          | TE1602CG        |          |
|                       | LXT360/361/362/363           |           |               |         |         |                 |          | TE1602CE        |          |
|                       | LXT380/381/384/386/388       |           |               |         |         |                 |          | TE1609CG        |          |
|                       | LXT380/381/384/386/388       |           |               |         |         |                 |          | TE1609CG        |          |
|                       | LXT3104,LST3108              |           |               |         |         |                 |          | TE1609CE        |          |
|                       | LXT380/381/384/386/388       |           |               |         |         |                 |          | TE1609CE        |          |
|                       | LXT3104,LXT3108              |           |               |         |         |                 |          | TE1203CG        |          |
|                       | LXT380/381.384/386/388       |           |               |         |         |                 |          | TE1203CG        |          |
|                       | LXT3104,LXT3108              |           |               |         |         |                 |          |                 |          |
| EXAR                  | XRT75XXX XRT73L00/2/3/4/6/12 | T2401CE   |               |         |         |                 |          |                 |          |
|                       | XRT73LC03A/04A,R12           | T2401CE   |               |         |         |                 |          |                 |          |
|                       | XRT7300/7302                 | T2401CE   |               |         |         |                 |          |                 |          |
|                       | T5684 XRT7288 82D20          |           |               |         |         |                 |          | TE1201CG        |          |
|                       | XRT5683A,XRT59L91            |           |               |         |         |                 |          | TE1203CE        |          |
|                       | XRT81L27,82L24,82D20         |           |               |         |         |                 |          | TE1203CE        |          |
|                       | XRT83L30/4/8/314             |           |               |         |         |                 |          | TE1208CE        |          |
|                       | 86L38 XRT86L30/32/34/38      |           |               |         |         |                 |          | TE1208CE        |          |
|                       | XRT83L30/4/8/314,86L38       |           |               |         |         |                 |          | TE1602CG        |          |
|                       | XRT83SL30/4/8/314            |           |               |         |         |                 |          | TE1602CG        |          |
|                       | XRT86L30/32/34/38            |           |               |         |         |                 |          | TE1602CE        |          |
|                       | XRT5683A,XRT59L91            |           |               |         |         |                 |          | TE1609CG        |          |
|                       | XRT5894/5897/5997            |           |               |         |         |                 |          | TE1609CG        |          |
|                       | XRT81L27,82L24,82D20         |           |               |         |         |                 |          | TE1609CG        |          |
|                       | XRT75XXX                     |           |               |         |         |                 |          | TE3205CG        |          |
|                       | XRT73L00/2/3/4/6/12          |           |               |         |         |                 |          |                 | TE3205CG |
|                       | XRT73LC03A/04A               |           |               |         |         |                 |          |                 | TE3205CG |
| XRT7300/7302          |                              |           |               |         |         |                 |          | TE3205CG        |          |
| Mindspeed             | CN28333/332/331              |           |               |         |         |                 |          | T2401CE         |          |
|                       | M28335/M28356                |           |               |         |         |                 |          | T2401CE         |          |
|                       | M28354/3/2                   |           |               |         |         |                 |          | T2401CE         |          |
| Agere                 | ET901                        |           | H1601CG       | H2401CG |         |                 |          |                 |          |
|                       | ET908                        |           | H1601CG       |         |         |                 |          |                 |          |
|                       | ET1011 ET1012                |           |               |         |         | G2436CG         | G4801CG  |                 |          |
|                       | ET1081                       |           |               |         |         |                 | G5002CG  |                 |          |
|                       | ET1310                       |           |               |         |         | G2405CG         | G4802CG  |                 |          |
|                       | ET2005-40/50                 |           |               |         |         |                 | G4830CG  |                 |          |
|                       | ET2008-30/40/50              |           |               |         |         | G2443CG         |          |                 |          |
| ET3028-50             |                              |           |               |         |         |                 |          |                 |          |

| Manufacturer               | IC Part Number        | 10 Base-T | 10/100 Base-T |         |         | 100/1000 Base-T |         | T1/E1/CEPT/ISDN |      |
|----------------------------|-----------------------|-----------|---------------|---------|---------|-----------------|---------|-----------------|------|
|                            |                       | Single    | Single        | Dual    | Quad    | Single          | Dual    | Single          | Dual |
| AMD                        | AM79C874/C875         |           | H1601CG       | H2401CG |         |                 |         |                 |      |
|                            | AM79C971/C972/C973/   |           | H1601CG       |         |         |                 |         |                 |      |
|                            | AM79C975/C976/C977    |           | H1601CG       |         |         |                 |         |                 |      |
| Broadcom                   | AC101, AC101L         |           | H1601CG       | H2401CG |         |                 |         |                 |      |
|                            | AC104/205/206/207/208 |           |               |         | H4001CG |                 |         |                 |      |
|                            | AC131                 |           | H1602CG       |         | H4001CG |                 |         |                 |      |
|                            | BCM1190               |           | H1601CG       |         |         |                 |         |                 |      |
|                            | BCM5241               |           | H1601CG       |         | H4001CG |                 |         |                 |      |
|                            | BCM5220/ 5221         |           | H1601CG       |         |         |                 |         |                 |      |
|                            | BCM5222               |           | H1602CG       |         |         |                 |         |                 |      |
|                            | BCM1100/110/          |           | H1606CG       |         |         |                 |         |                 |      |
|                            | BCM6345/6348          |           | H1602CG       |         |         |                 |         |                 |      |
|                            | BCM5350/5380          |           | H1601CG       |         |         |                 |         |                 |      |
|                            | AC104, BCM5208R       |           | H1601CG       |         |         |                 |         |                 |      |
|                            | BCM5315/5325(M)       |           | H1601CE       |         | H4001CE |                 |         |                 |      |
|                            | BCM5225/26/27         |           | H1601CG       |         | H4807CG |                 |         |                 |      |
|                            | AC207/208             |           | H1606CG       |         |         |                 |         |                 |      |
|                            | BCM5400, BCM5401      |           |               |         |         | G2413CG         | G4801CG |                 |      |
|                            | BCM5411/21/21S        |           |               |         |         |                 | G5002CG |                 |      |
|                            | BCM5460/61/81         |           |               |         |         | G2405CG         | G4802CG |                 |      |
|                            | BCM5701/02/03/04/05   |           |               |         |         | G2443CG         | G4830CG |                 |      |
|                            | BCM5461S              |           |               |         |         | G2497AG         |         |                 |      |
|                            | BCM5789               |           |               |         |         | G2411CG         |         |                 |      |
| BCM1100/110/AC104,BCM5208R |                       |           |               |         | G2413CG |                 |         |                 |      |
| AC1011/1012                |                       |           |               |         | G2497AG |                 |         |                 |      |
| AC131 BCM5220/5221         |                       |           |               |         | G2456CG |                 |         |                 |      |
| Infinion ADM7001           |                       |           |               |         | G2456CG |                 |         |                 |      |
| Davicom                    | DM9000/A              |           | H1601CE       | H2401CG |         |                 |         |                 |      |
|                            | DM9102A/D             |           | H1601CG       |         |         |                 |         |                 |      |
|                            | DM9601                |           | H1601CE       |         |         |                 |         |                 |      |
|                            | DM9301/9331           |           | H1606CG       |         |         |                 |         |                 |      |
| IC+                        | 3097-F, 3299A         |           |               | H2401CG | H4001CG |                 |         |                 |      |
|                            | IP100A                |           | H1601CE       |         |         |                 |         |                 |      |
|                            | IP108                 |           | H1601CE       |         | H4001CE |                 |         |                 |      |
|                            | IP1726                |           |               |         | H4807CG |                 |         |                 |      |
|                            | IP101                 |           |               |         |         |                 |         |                 |      |
| ICS                        | ICS1890/1891          |           | H1601CG       |         |         |                 |         |                 |      |
|                            | ICS1893               |           |               |         |         | G2413CG         |         |                 |      |
| Infi neon                  | ADM8511/8513/9511     |           | H2401CG       |         |         |                 |         |                 |      |
|                            | ADM9513, AN983B       |           | H1601CG       | H2422CG |         |                 |         |                 |      |
|                            | ADM7001               |           | H1601CG       |         |         |                 |         |                 |      |
|                            | ADM6305               |           |               |         | H4001CG |                 |         |                 |      |
|                            | AN985B/L autoMDX      |           |               |         |         | G2413CG         |         |                 |      |
| ADM7001                    |                       |           |               |         | G2456CG |                 |         |                 |      |
| Luminary Micro             | LM3S6938              |           | H1601CG       |         |         |                 |         |                 |      |
|                            | LM3S8962              |           | H1606CG       |         |         |                 |         |                 |      |
| LSI                        | L80223                |           | H1601CG       | H2401CG |         |                 |         |                 |      |
|                            | L80227                |           | H1606CG       |         |         |                 |         |                 |      |
|                            | L80600                |           |               |         |         | G2413CG         | G4801CG |                 |      |
|                            | L80601                |           |               |         |         | G2497AG         |         |                 |      |
| Marvell                    | 88E6021               |           |               | H2401CG | H4001CG |                 |         |                 |      |
|                            | 88E6060/88E6218       |           | H1601CE       |         | H4001CE |                 |         |                 |      |
|                            | 88E6052,88E6063       |           | H1606CG       |         | H4807CG |                 |         |                 |      |
| Marvell Semiconductor      | 88E1010/1011S         |           |               |         |         | G2436CG         | G4801CG |                 |      |
|                            | 88E1111/12/14/18/19   |           |               |         |         |                 | G5002CG |                 |      |
|                            | 88E1040/1040S/1041    |           |               |         |         |                 | G4830CG |                 |      |
|                            | 88E1041S/1042/1042S   |           |               |         |         | G2443CG         |         |                 |      |

| Manufacturer                    | IC Part Number              | 10 Base-T |         | 10/100 Base-T |         | 100/1000 Base-T |          | T1/E1/CEPT/ISDN |      |
|---------------------------------|-----------------------------|-----------|---------|---------------|---------|-----------------|----------|-----------------|------|
|                                 |                             | Single    | Single  | Dual          | Quad    | Single          | Dual     | Single          | Dual |
| MICREL                          | KS8721B/21BL/37             |           | H1601CG | H2401CG       |         |                 |          |                 |      |
|                                 | KS8737                      |           | H1601CG |               |         |                 |          |                 |      |
|                                 | KSZ8893                     |           | H1606CG |               |         |                 |          |                 |      |
|                                 | KS8995/95M/95MA/95E         |           | H1606CG |               |         |                 |          |                 |      |
| Micre                           | KS8737                      |           |         |               |         | G2413CG         |          |                 |      |
|                                 | KS9020                      |           |         |               |         | G2436CG         | G4801CG  |                 |      |
| Microchip                       | PIC18F87J50                 |           | H1601CG |               |         |                 |          |                 |      |
|                                 | ENC28J60                    |           | H1601CG |               |         |                 |          |                 |      |
| MicroLinear                     | ML6652                      |           | H1601CG |               |         |                 |          |                 |      |
| Myson                           | MTD971                      |           | H1601CG | H2401CG       |         |                 |          |                 |      |
|                                 | MTD981                      |           | H1601CG |               |         |                 |          |                 |      |
| Mysticom                        | MystiPHY110                 |           | H1601CE |               |         |                 | G4801CG  |                 |      |
| Mysticom                        | MY1001                      |           |         |               |         | G2497AG         | G5002CG  |                 |      |
| National Semiconductor          | DP83847                     |           | H1601CG | H2401CG       |         |                 |          |                 |      |
|                                 | DP83848/C                   |           | H1636CG |               |         |                 |          |                 |      |
|                                 | DP83816 (macphyter II)      |           | H1601CE |               |         |                 |          |                 |      |
| Realtek                         | RTL8100C/101L/100B          |           | H1601CG | H2401CG       |         |                 |          |                 |      |
|                                 | RTL8150                     |           |         | G2413CG       |         |                 |          |                 |      |
|                                 | RTL8019AS                   |           | H1601CE |               |         |                 |          |                 |      |
|                                 | RTL8181/86                  |           | H1606CG |               |         |                 |          |                 |      |
|                                 | RTL8208                     |           | H1601CG |               | H4001CG |                 |          |                 |      |
|                                 | RTL8316                     |           |         |               | H4001CG |                 |          |                 |      |
|                                 | RLT8211/12                  |           |         |               |         | G2436CG         | G4801CG  |                 |      |
|                                 | RLT8169                     |           |         |               |         |                 | G5002CG  |                 |      |
| SIS                             | RTL8150                     |           | H1601CG |               |         | G2413CG         |          |                 |      |
|                                 | SiS900                      |           | H1606CG |               |         |                 |          |                 |      |
| SMSC                            | LAN83C183/185               |           | H1601CG | H2401CG       |         |                 |          |                 |      |
|                                 | LAN8187                     |           |         |               |         | G2443CG         |          |                 |      |
|                                 | LAN91C100FD/110             |           |         |               |         |                 |          |                 |      |
|                                 | LAN91C111                   | H1606CG   |         |               |         |                 |          |                 |      |
| National Semiconductor          | DP83865                     |           |         |               |         | G2436CG         | G4801CG  |                 |      |
|                                 | DP83864                     |           |         |               |         | G2497AG         | G5002CG  |                 |      |
|                                 | DP83640                     |           |         |               |         | G2443CG         |          |                 |      |
| Vitesse Semiconductor           | VSC8201/8211                |           |         |               |         | G2436CG         | G4801CG  |                 |      |
|                                 | VSC8221/8601/8641           |           |         |               |         | G2497AG         | G5002CG  |                 |      |
|                                 | VSC8204/24/34/44            |           |         |               |         | G2401CG         |          |                 |      |
|                                 | VSC8558/8538                |           |         |               |         | G2443CG         |          |                 |      |
|                                 | wVSC7380/7384               |           |         |               |         | G2411CG         |          |                 |      |
| Maxim                           | VSC7388/7398                |           |         |               |         |                 | G4802CG  |                 |      |
|                                 | DS2151/2152/2153/2154       |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | DS2148/Q48                  |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | DS21552/Q552                |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | DS21554/Q554                |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | DS2196,2155,2149,21448      |           |         |               |         |                 |          | TE1208CE        |      |
|                                 | DS21352/Q352,DS21354/Q354   |           |         |               |         |                 |          | TE1208CE        |      |
|                                 | DS26502/3 DS21455/8 DS26528 |           |         |               |         |                 |          | TE1208CE        |      |
|                                 | DS2 196,2155,2149,21448     |           |         |               |         |                 |          | TE1602CG        |      |
|                                 | DS2148/Q48/Q348/349/Q59     |           |         |               |         |                 |          | TE1602CG        |      |
|                                 | DS21352/Q552,DS21354/Q354   |           |         |               |         |                 |          | TE1602CE        |      |
|                                 | DS2196,2155,2149,21448      |           |         |               |         |                 |          | TE1602CE        |      |
|                                 | DS2148/Q48/Q348/349/Q59     |           |         |               |         |                 |          | TE1602CE        |      |
|                                 | DS21352/Q352,DS21354/Q354   |           |         |               |         |                 |          | TE1602CE        |      |
| DS21455/8 DS26528               |                             |           |         |               |         |                 | TE1602CE |                 |      |
| PMC-Sierra                      | PM4341/6341/4314            |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | PM4323/                     |           |         |               |         |                 |          | TE1203CG        |      |
|                                 | PM4325                      |           |         |               |         |                 |          | TE1609CG        |      |
| Infineon Technologies (Siemens) | PEB2254/55                  |           |         |               |         |                 |          | TE1201CG        |      |
|                                 | PSB21381/82/83/84           |           |         |               |         |                 |          | TE1603CG        |      |
|                                 | PEB3018/86,PSB3186          |           |         |               |         |                 |          | TE1603CG        |      |

| Manufacturer | IC Part Number               | 10 Base-T |        | 10/100 Base-T |      |        | 100/1000 Base-T |        | T1/E1/CEPT/ISDN |          |
|--------------|------------------------------|-----------|--------|---------------|------|--------|-----------------|--------|-----------------|----------|
|              |                              | Single    | Single | Dual          | Quad | Single | Dual            | Single | Dual            |          |
| IDT          | 82V2041E/2E/4E/8E            |           |        |               |      |        |                 |        | TE1208CE        |          |
|              | 82V2081/2/4/8 82P2281/2/4/8  |           |        |               |      |        |                 |        | TE1602CE        |          |
| Mindspeed    | M29378/M29374/M29371M29368   |           |        |               |      |        |                 |        | TE1602CE        |          |
|              | CN28333/332/331 M28335       |           |        |               |      |        |                 |        |                 | TE3205CG |
| Maxim        | M28356 M28354/3/2            |           |        |               |      |        |                 |        |                 | TE3205CG |
|              | DS2 196,2155,2149,21448      |           |        |               |      |        |                 |        | TE1602CG        |          |
|              | DS2148/Q48/Q348/349/Q59      |           |        |               |      |        |                 |        | TE1602CG        |          |
|              | DS21352/Q552,DS21354/Q354    |           |        |               |      |        |                 |        | TE1602CG        |          |
|              | DS26502/3 DS26502/3          |           |        |               |      |        |                 |        | TE1602CE        |          |
| Zarlink      | DS21455/8 DS26528            |           |        |               |      |        |                 |        | TE1602CE        |          |
|              | MT9074,MT9075                |           |        |               |      |        |                 |        | TE1617CE        |          |
| MOTOROLA     | MC145474/4/475               |           |        |               |      |        |                 |        | TE1603CG        |          |
|              | MC145574                     |           |        |               |      |        |                 |        | TE1604CG        |          |
| Transwitch   | ART TXC-02020 ARTE TXC-2021  |           |        |               |      |        |                 |        |                 | TE3205CG |
|              | DARTTXC-2030,DS3DARTTXC-2030 |           |        |               |      |        |                 |        |                 | TE3205CG |
|              | E3 DS3LIM-SN,TSC20153G       |           |        |               |      |        |                 |        |                 | TE3205CG |
|              | E3LIM TXC-20163              |           |        |               |      |        |                 |        |                 | TE3205CG |

## Optimization of Product Number

| Package Type          | DATA Rate       | Port        | P/N      | P/N     | P/N      | P/N      |
|-----------------------|-----------------|-------------|----------|---------|----------|----------|
| SMT                   | 10/100 BASE-T   | SINGLE PORT | H1601CG  | H1604CG | H1606CG  | H1631CG  |
|                       | 100/1000 BASE-T | SINGLE PORT | G2401CG  | G2405CG | G2488CE  | G2497CG  |
|                       | 10/100 BASE-T   | QUAD PORT   | H4001CG  | H4807CG |          |          |
|                       | 100/1000 BASE-T | DUAL PORT   | G4802CG  | G4811CG |          |          |
| DIP                   | 100/1000 BASE-T | SINGLE PORT | G2401DG  | G2408DG | G1801DG  | G1811DG  |
|                       | 10/100 BASE-T   | DUAL PORT   | H2001DG  | H2002DG | H2052DG  |          |
|                       | 100/1000 BASE-T | DUAL PORT   | G3601DG  | G3614DG | G4801DG  | G4804DG  |
|                       | 100/1000 BASE-T | QUAD PORT   | G7201DG  | G7216DG | G9607DG  |          |
| Leading Specification | DATA Rate       | Port        | P/N      | P/N     | P/N      | P/N      |
| POE+                  | 100/1000 BASE-T | SINGLE PORT | G2462CE  | G2484CE | G24102CE | G24115CE |
|                       | 100/1000 BASE-T | DUAL PORT   | G4813CG  | G4818CG |          |          |
|                       | 100/1000 BASE-T | QUAD PORT   | G9603DG  |         |          |          |
| 2.5G                  | 2.5G BASE-T     | SINGLE PORT | G24125CE |         |          |          |
|                       | 2.5G BASE-T     | DUAL PORT   | G5015CG  |         |          |          |
| 2.5G                  | 5G BASE-T       | SINGLE PORT | G24155CG |         |          |          |
|                       | 5G BASE-T       | DUAL PORT   | G4850CG  |         |          |          |
| 10G                   | 10G BASE-T      | SINGLE PORT | M2401CG  | M2403CG |          |          |
|                       | 10G BASE-T      | DUAL PORT   | M4801CG  |         |          |          |

- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Through-Hole Type.
- Operating temperature range: 0°C to +70°C.

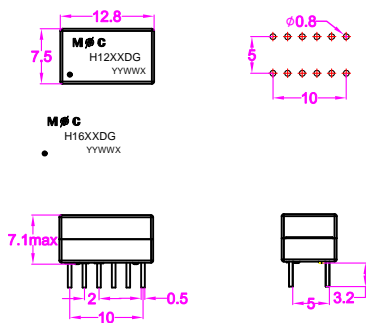


## Electrical Specifications @25°C

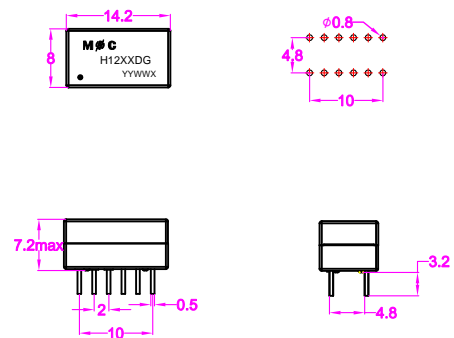
| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |     | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|-----|--------------------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            |     |                                |                  |
| H1201DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H1202DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H1206DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H1222DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |

## MECHANICAL

H1201DG H1222DG



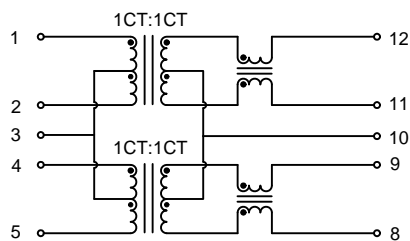
H1202DG H1206DG



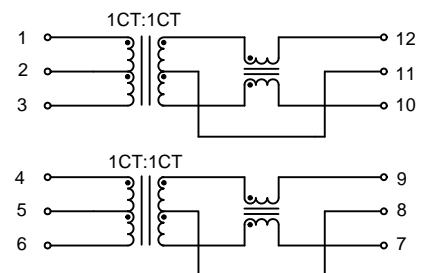
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

H1201DG H1202DG



H120DG H1222DG





- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 100/1000 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.

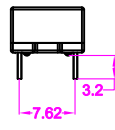
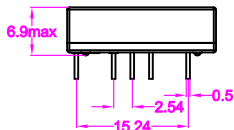
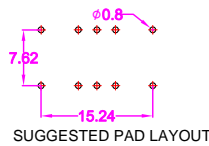
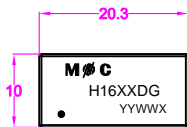


## Electrical Specifications @25°C

| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           |                  | Return Loss<br>(dB Min) |           |                  | Cross talk<br>(dB Min) |      | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-----------|------------------|-------------------------|-----------|------------------|------------------------|------|--------------------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz       | 60.1-80MHz              | 0.5-40MHz | 40.1-100MHz      |                        |      |                                |                  |
| H1605DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30) | -12                     | -35       | -33+20*log(f/50) | -30                    | 1500 |                                |                  |
| H1610DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30) | -12                     | -35       | -33+20*log(f/50) | -30                    | 1500 |                                |                  |

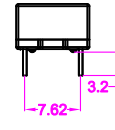
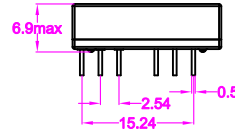
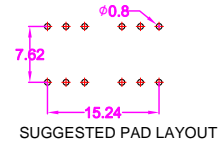
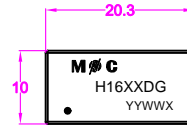
## MECHANICAL

H1605DG



NOTE: PIN 2,6,8,9,11,15 cut off

H1610DG

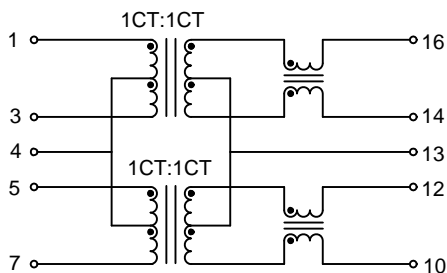


NOTE: PIN 4,8,9,13 cut off

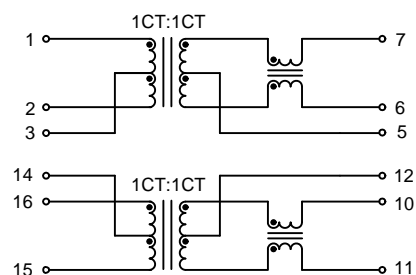
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

H1605DG



H1610DG



- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 100/1000 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.

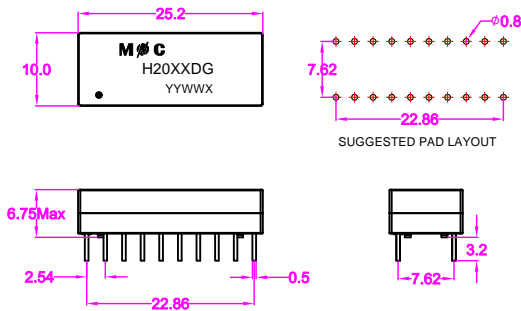


## Electrical Specifications @25°C

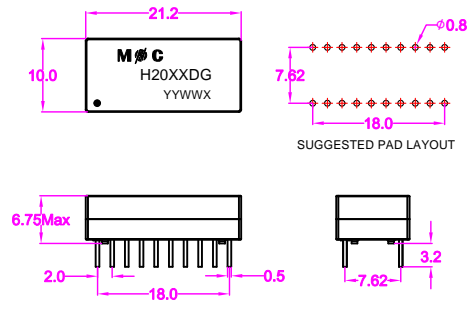
| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |     | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|-----|--------------------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            |     |                                |                  |
| H2001DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H2002DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H2005DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H2038DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |

## MECHANICAL

H2001DG, H2005DG



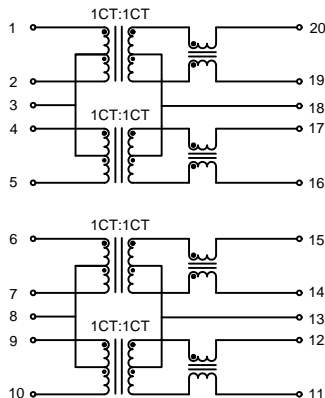
H2002DG, H2038DG



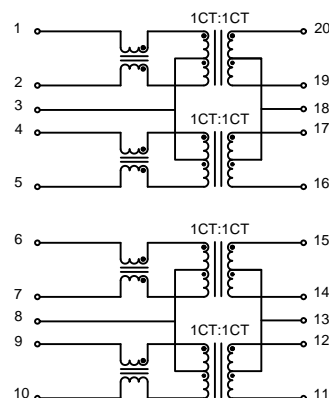
Unless otherwise specified all tolerances are: ±0.25 in mm

## SCHEMATICS

H2001DG, H2002DG



H2005DG, H2038DG



- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.

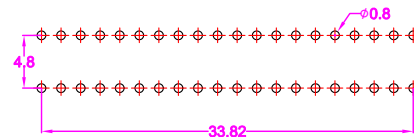
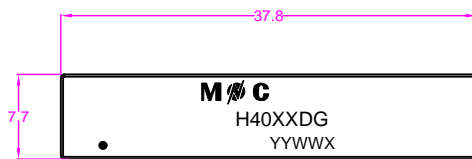


## Electrical Specifications @25°C

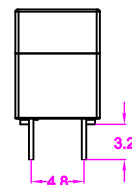
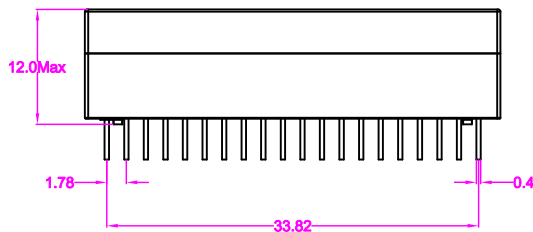
| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |     | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|-----|--------------------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            |     |                                |                  |
| H4001DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H4011DG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |

## MECHANICAL

H4011DG, H4012DG



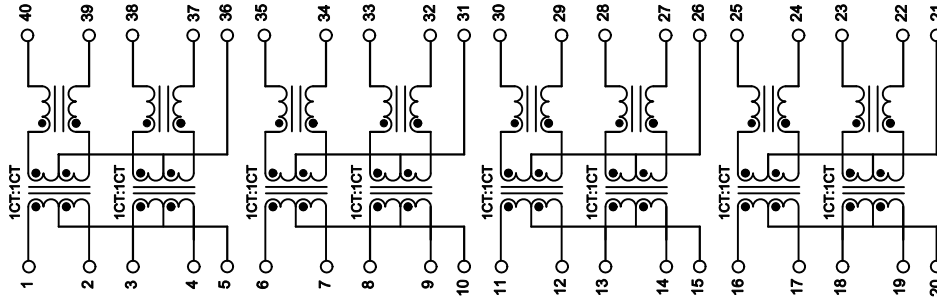
SUGGESTED PAD LAYOUT



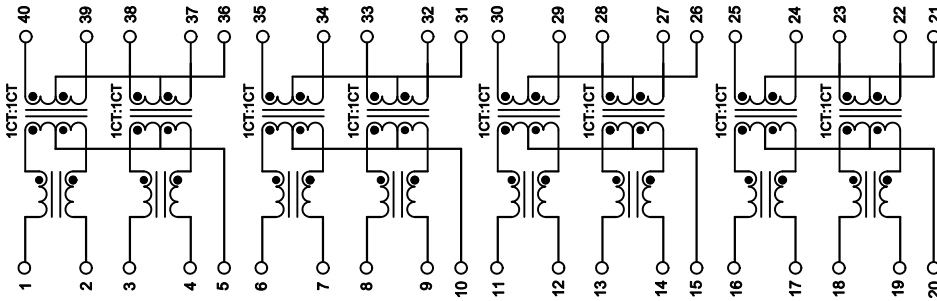
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

H4001DG



H4011DG



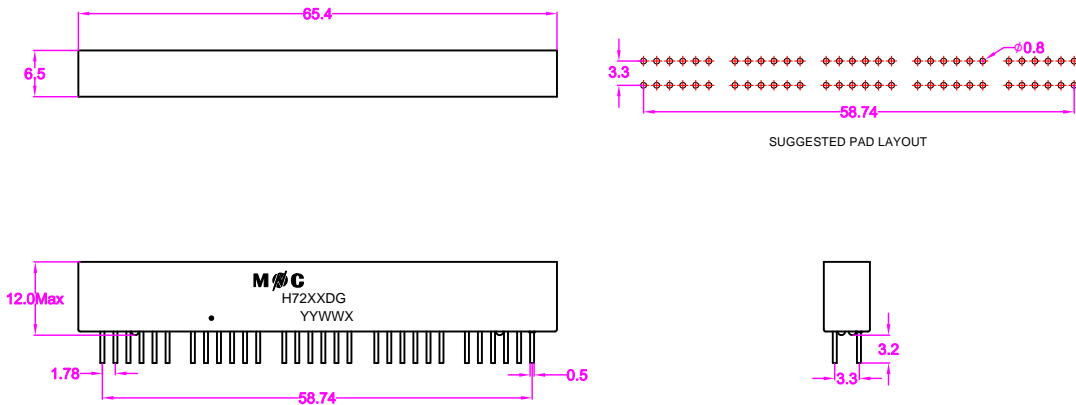
- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Through-Hole Type.
- Standard and Extended Operate Temperature .



| Electrical Specifications @25°C |  |                      |                            |           |                         |            |           |                        |            |                  |                  |
|---------------------------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|------------|------------------|------------------|
| Part Number                     | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |            | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            | 0.5-100MHz |                  |                  |
| H7201DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30        | 1500             |                  |

## MECHANICAL

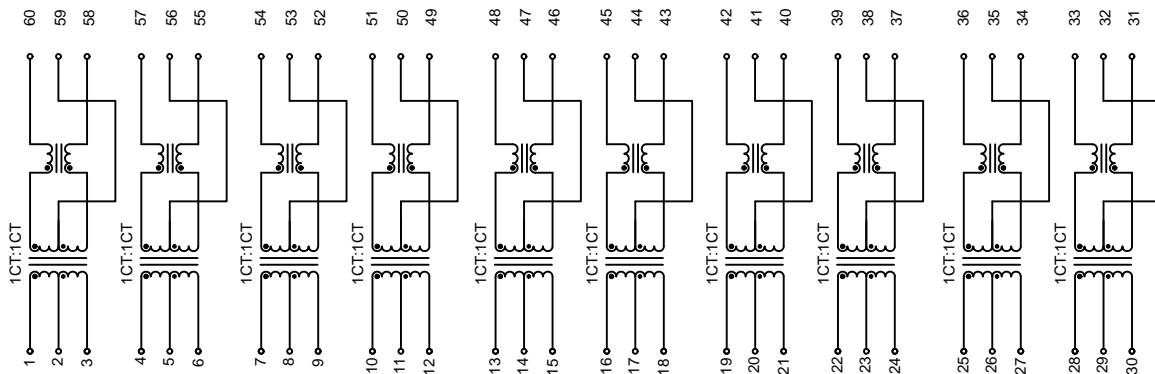
H7201DG



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

H7201DG



- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 100/1000 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.

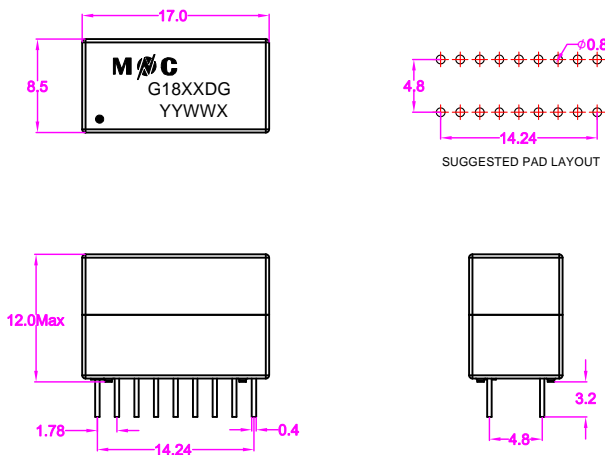


## Electrical Specifications @25°C

| Part Number | OCL( $\mu$ H)<br>100KHz, 0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>( $\pm 5\%$ ) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                           | Cross talk<br>(dB Min) |                           | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|---|------------------------------|----------------------------|-------------------------|---------------------------|------------------------|---------------------------|------------------|------------------|
|             |   |                              |                            | 0.5-100MHz              | 10.1-100MHz               | 0.5-40MHz              | 40.1-100MHz               |                  |                  |
|             |   |                              |                            | 0.5-100MHz              | 10.1-100MHz               | 0.5-100MHz             | 0.5-100MHz                |                  |                  |
| G1801DG     | 350 $\mu$ H   | 1CT:1CT                      | -1.1                       | -18                     | $-18+20 \cdot \log(f/30)$ | -35                    | $-33+20 \cdot \log(f/50)$ | -30              | 1500             |
| G1802DG     | 350 $\mu$ H   | 1CT:1CT                      | -1.1                       | -18                     | $-18+20 \cdot \log(f/30)$ | -35                    | $-33+20 \cdot \log(f/50)$ | -30              | 1500             |
| G1803DG     | 350 $\mu$ H   | 1CT:1CT                      | -1.1                       | -18                     | $-18+20 \cdot \log(f/30)$ | -35                    | $-33+20 \cdot \log(f/50)$ | -30              | 1500             |
| G1811DG     | 350 $\mu$ H   | 1CT:1CT                      | -1.1                       | -18                     | $-18+20 \cdot \log(f/30)$ | -35                    | $-33+20 \cdot \log(f/50)$ | -30              | 1500             |
| G1814DG     | 350 $\mu$ H   | 1CT:1CT                      | -1.1                       | -18                     | $-18+20 \cdot \log(f/30)$ | -35                    | $-33+20 \cdot \log(f/50)$ | -30              | 1500             |

## MECHANICAL

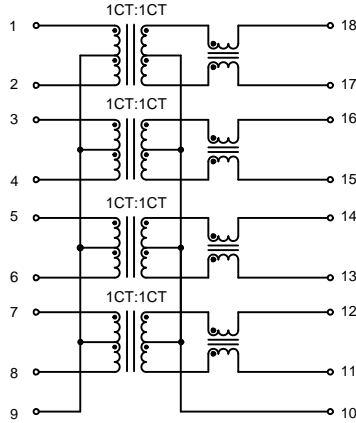
### G18XXDG



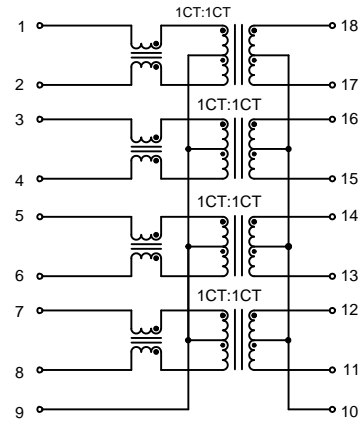
Unless otherwise specified all tolerances are:  $\pm 0.25$  in mm

## SCHEMATICS

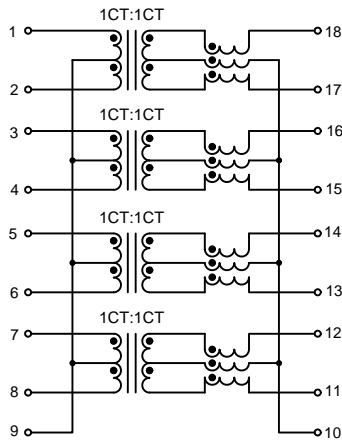
G1801DG



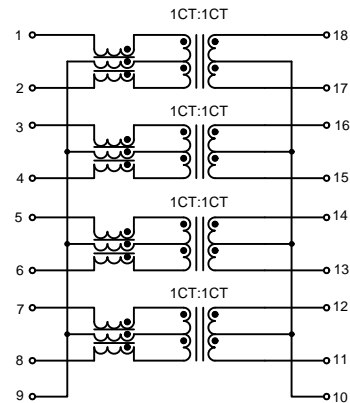
G1802DG



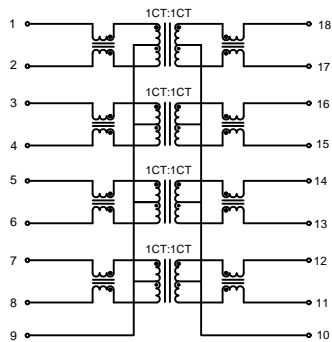
G1803DG



G1811DG



G1814DG



- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 100/1000 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.

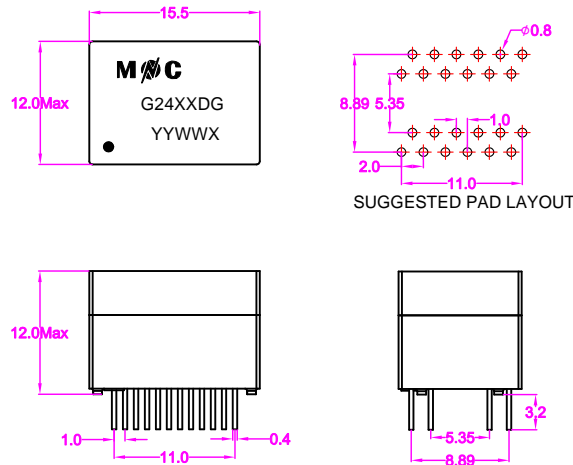


## Electrical Specifications @25°C

| Part Number | OCL(uH)<br>100KHz,0.1Vrms. | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|----------------------------|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
|             | With 8mA DC Bias           |                      | 0.5-100MHz                 | 0.5-40MHz               | 10.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      |                  |                  |
| G2401DG     | 350uH                      | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

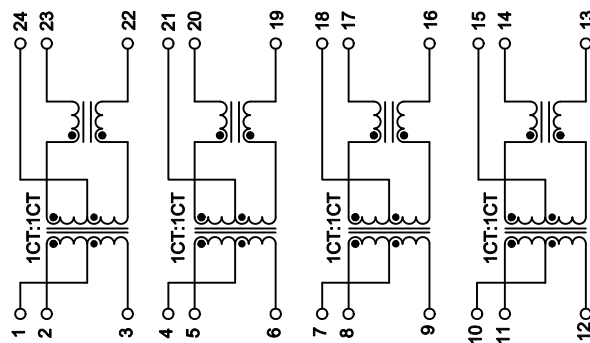
## MECHANICAL

G2401DG







Unless otherwise specified all tolerances are: ±0.25 in mm

## SCHEMATICS





-  Meets IEEE 802.3 & ANSI X3.263 Standards.
-  RoHS Compliant.
-  100/1000 Base-T, Through-Hole Type .
-  Operating temperature range: 0°C to +70°C.

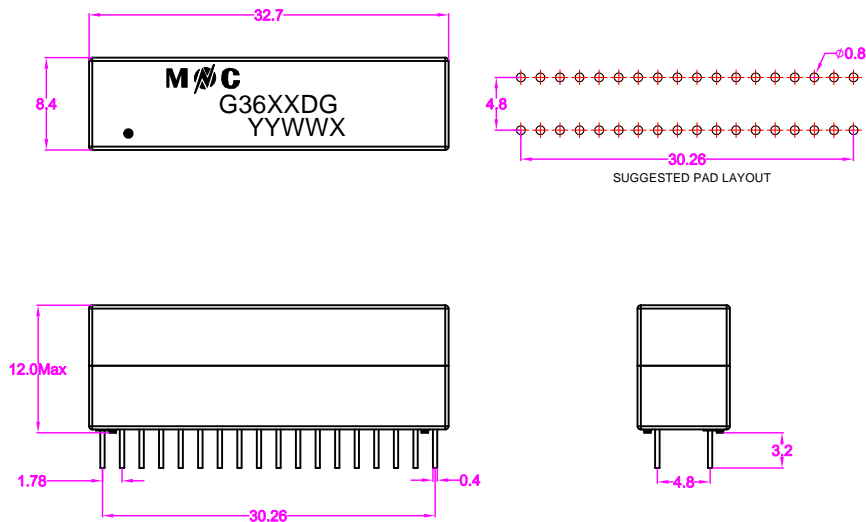


## Electrical Specifications @25°C

| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
|             |  |                      |                            | 0.5-100MHz              | 10.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      |                  |                  |
| G3601DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G3614DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G3604DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G3608DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

## MECHANICAL

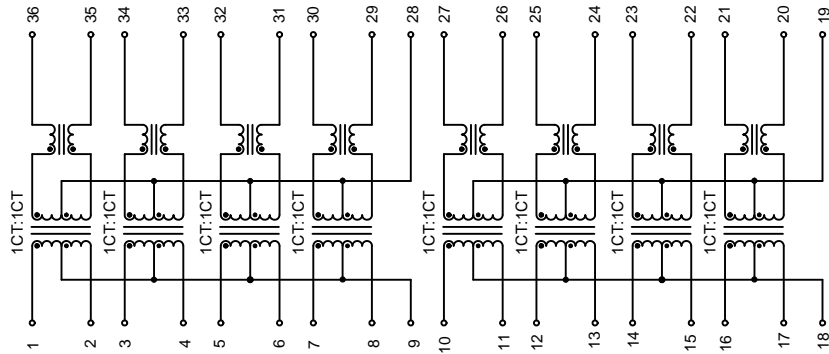
G36XXDG



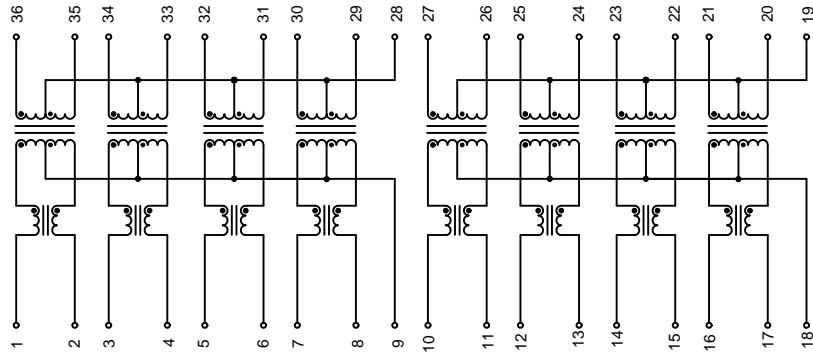
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

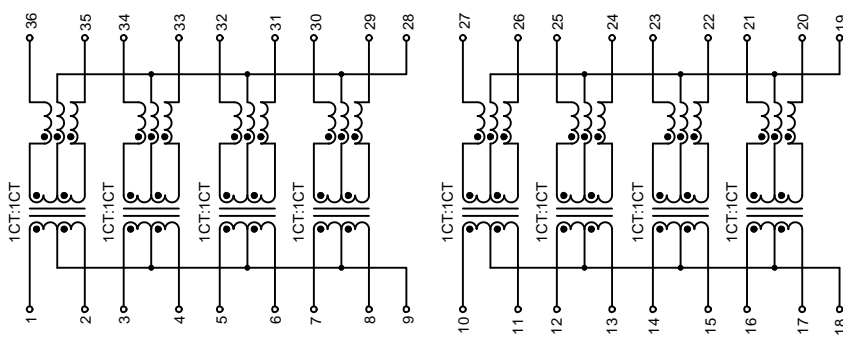
G3601DG



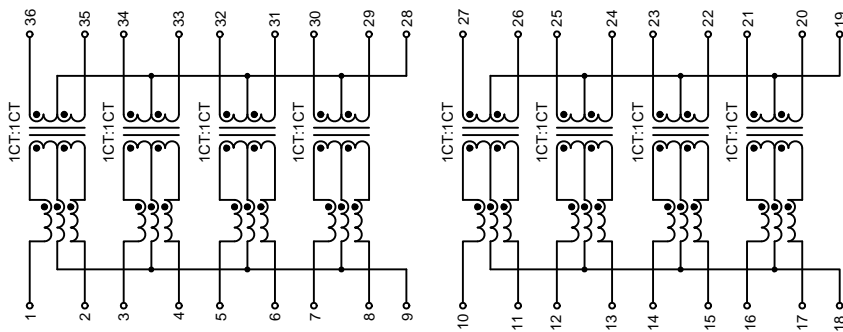
G3614DG







G3604DG



G3608DG



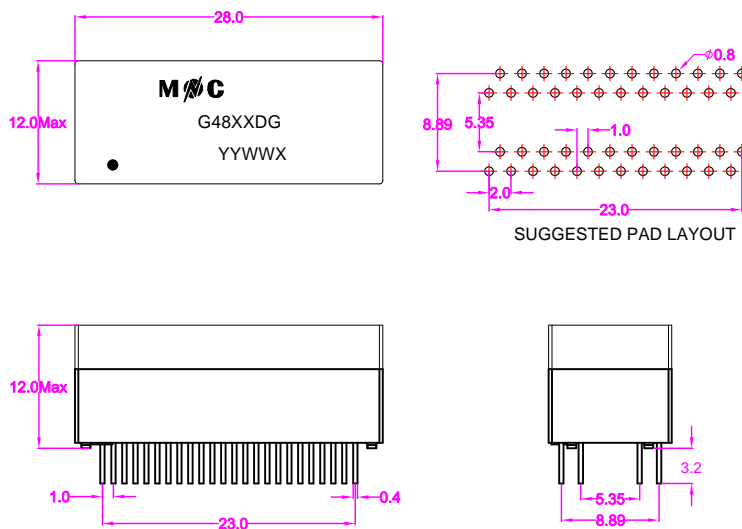
-  Meets IEEE 802.3 & ANSI X3.263 Standards.
-  RoHS Compliant.
-  100/1000 Base-T, Through-Hole Type .
-  Operating temperature range: 0°C to +70°C.



| Electrical Specifications @25°C |  |                      |                            |                         |                  |                        |                  |                  |                  |
|---------------------------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
| Part Number                     | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 |  |                      | 0.5-100MHz                 | 0.5-40MHz               | 10.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      | 0.5-100MHz       |                  |
| G4801DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G4802DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G4804DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G4805DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

## MECHANICAL

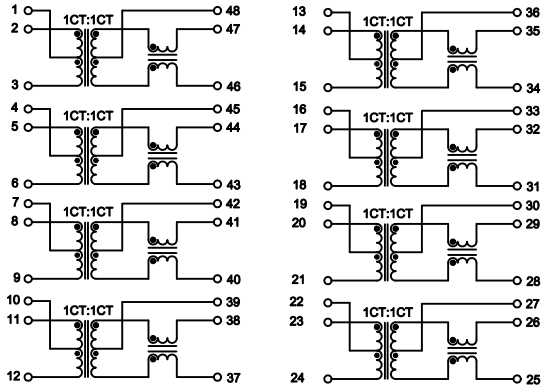
G48XXDG



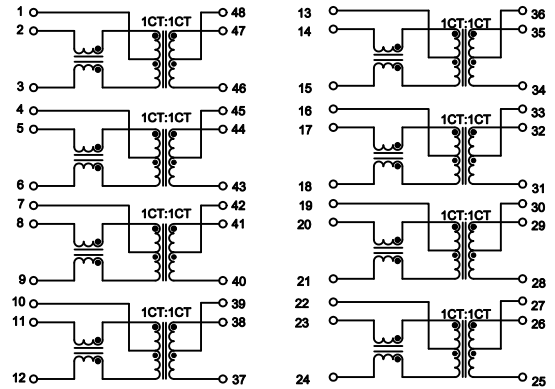
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

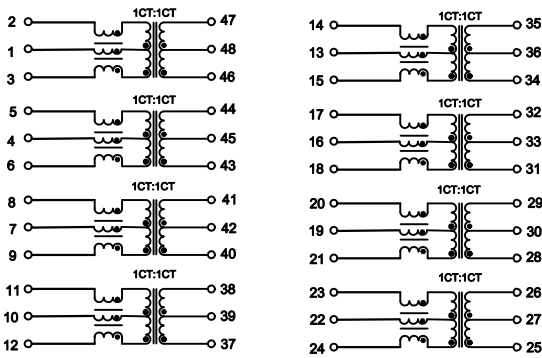
G4801DG



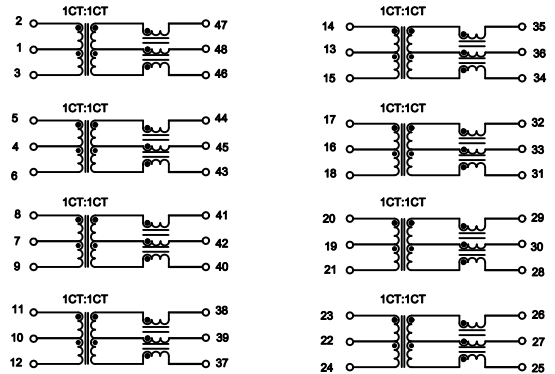
G4802DG







G4804DG



G4805DG



-  Meets IEEE 802.3 & ANSI X3.263 Standards.
-  RoHS Compliant.
-  100/1000 Base-T, Through-Hole Type .
-  Operating temperature range: 0°C to +70°C.

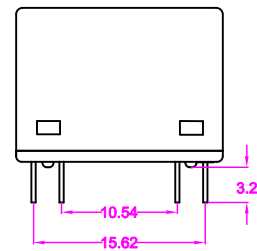
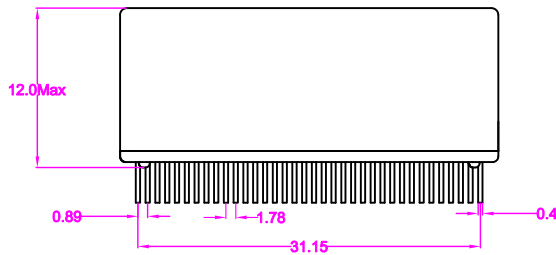
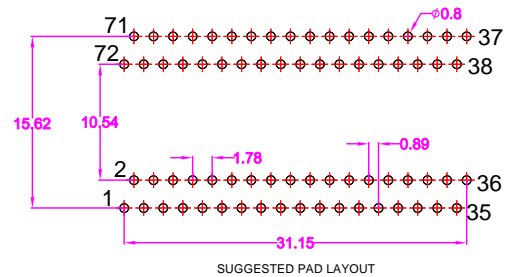
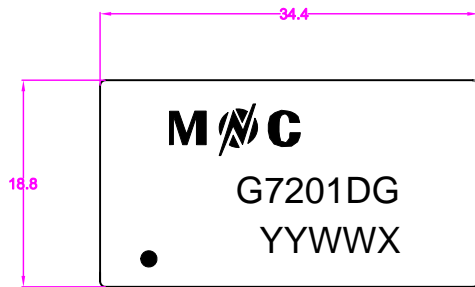


## Electrical Specifications @25°C

| Part Number | OCL(μH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
|             |  |                      |                            | 0.5-100MHz              | 10.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      |                  |                  |
| G7201DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G7202DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G7216DG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

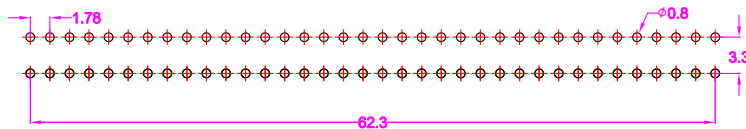
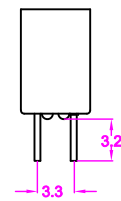
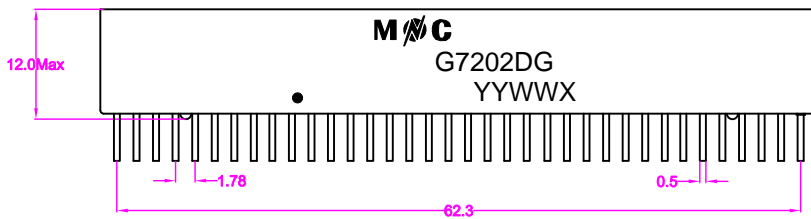
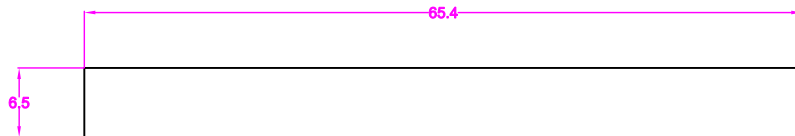
## MECHANICAL

G7201DG,G7216DG



Unless otherwise specified all tolerances are:±0.25 in mm

G7202DG



SUGGESTED PAD LAYOUT

Unless otherwise specified all tolerances are:  $\pm 0.25$  in mm

China +86 769 86921000 · USA +1 512 3433613 · Korea +82 3146394572 · Taiwan + 886 2 26984868 · Hongkong + 852 21211269

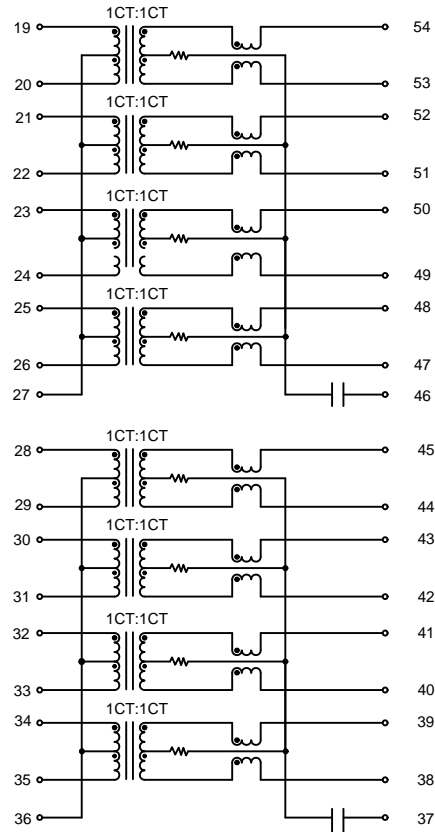
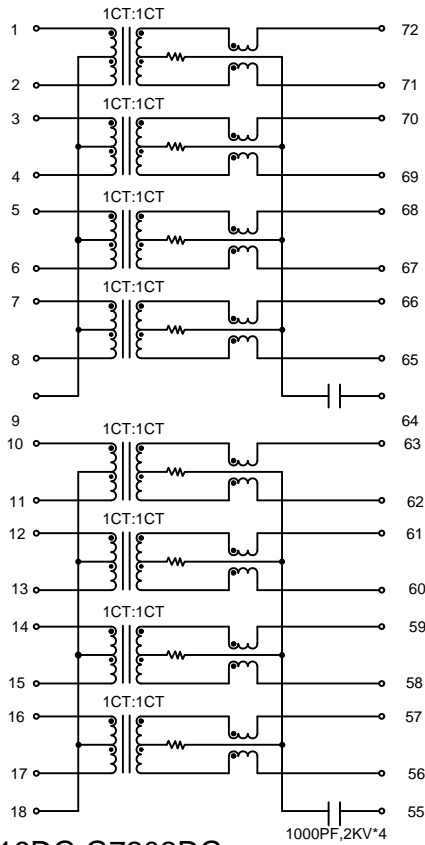
[www.mnc-tek.com](http://www.mnc-tek.com)

China +86 769 86921000 · USA +1 408 612 4549 · Korea +82 70 4639 4572 · Shanghai +86 13917333450 · Taiwan +886 2 271 1117 · Hongkong +852 21211269

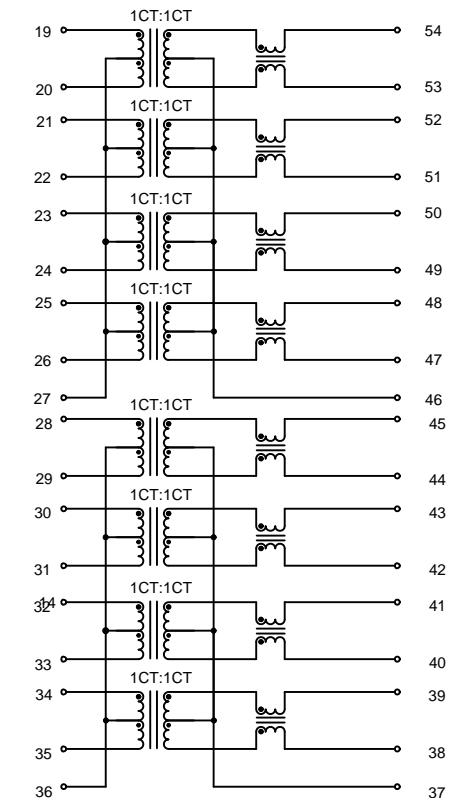
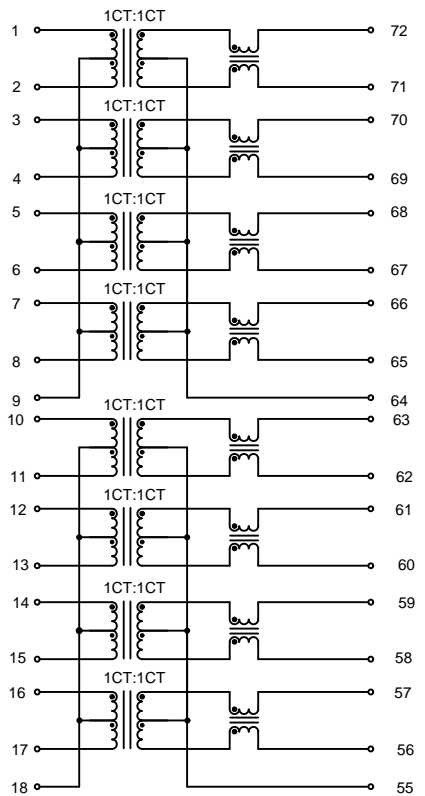
[www.mnc-tek.com](http://www.mnc-tek.com)

## SCHEMATICS

### G7201DG



### G7216DG, G7202DG

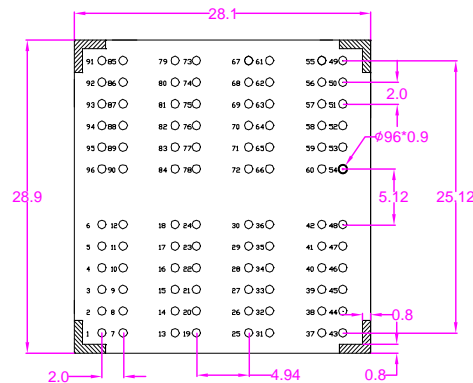
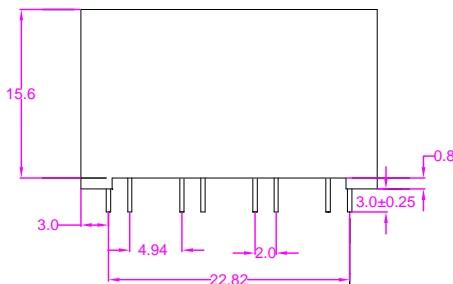
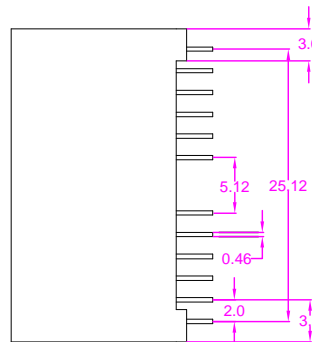
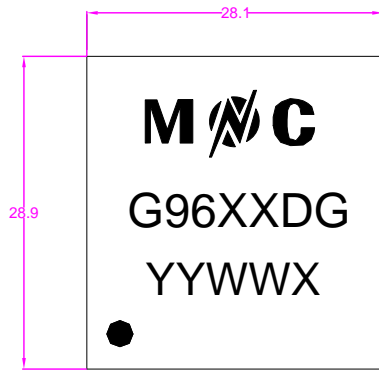


- Meets IEEE 802.3 & ANSI X3.263 Standards.
- RoHS Compliant.
- 100/1000 Base-T, Through-Hole Type .
- Operating temperature range: 0°C to +70°C.



| Electrical Specifications @25°C |  |                      |                            |                         |                  |                        |                  |                  |                  |
|---------------------------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
| Part Number                     | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 | 0.5-100MHz                                     |                      | 0.5-40MHz                  | 10.1-100MHz             | 0.5-40MHz        | 40.1-100MHz            | 0.5-100MHz       |                  |                  |
| G9601DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G9607DG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

## MECHANICAL



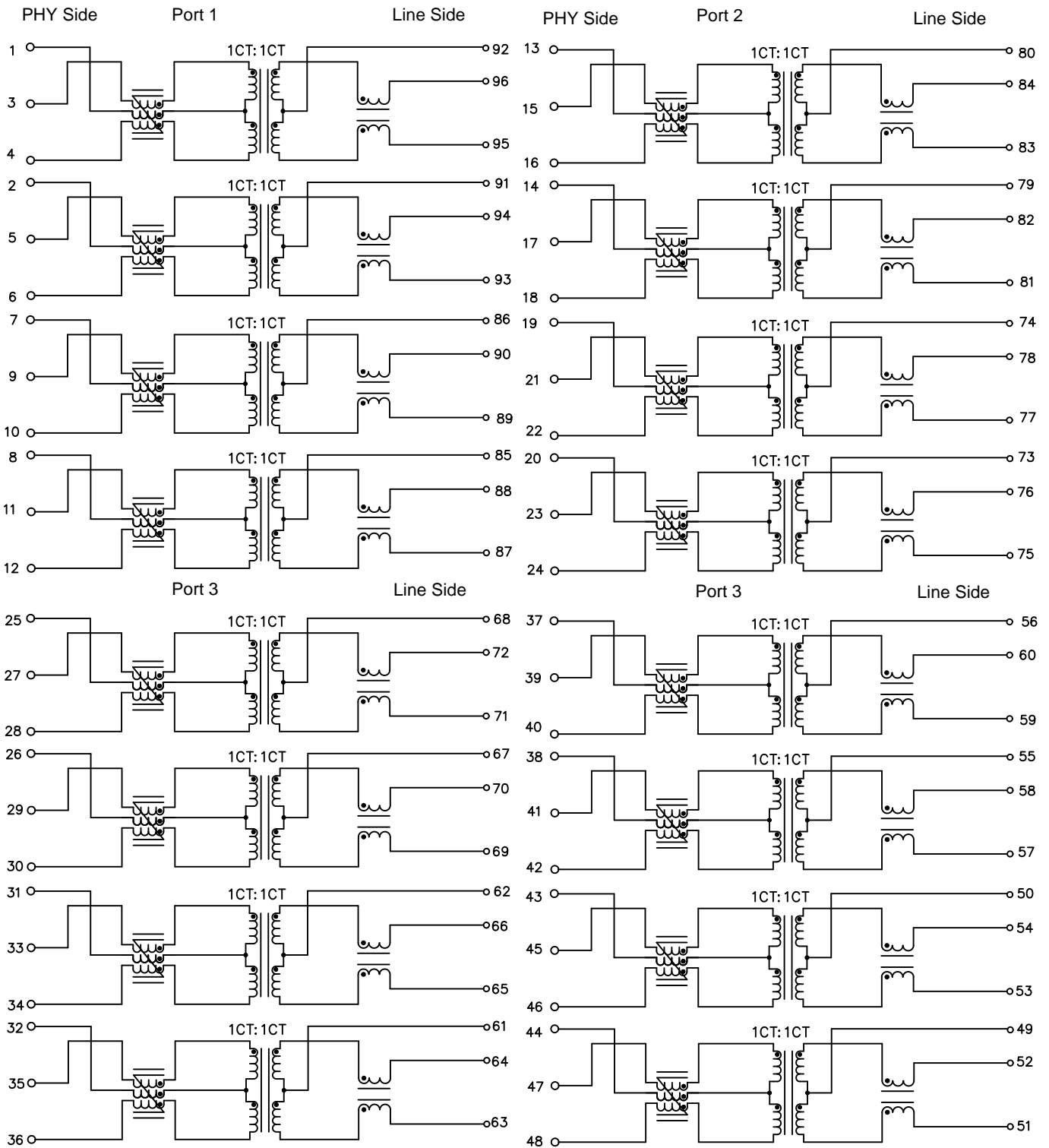
NO COMPONENT AREA.  
Suggested Customer PCB Layout  
(Component Side)

Unless otherwise specified all tolerances are:±0.25 in mm



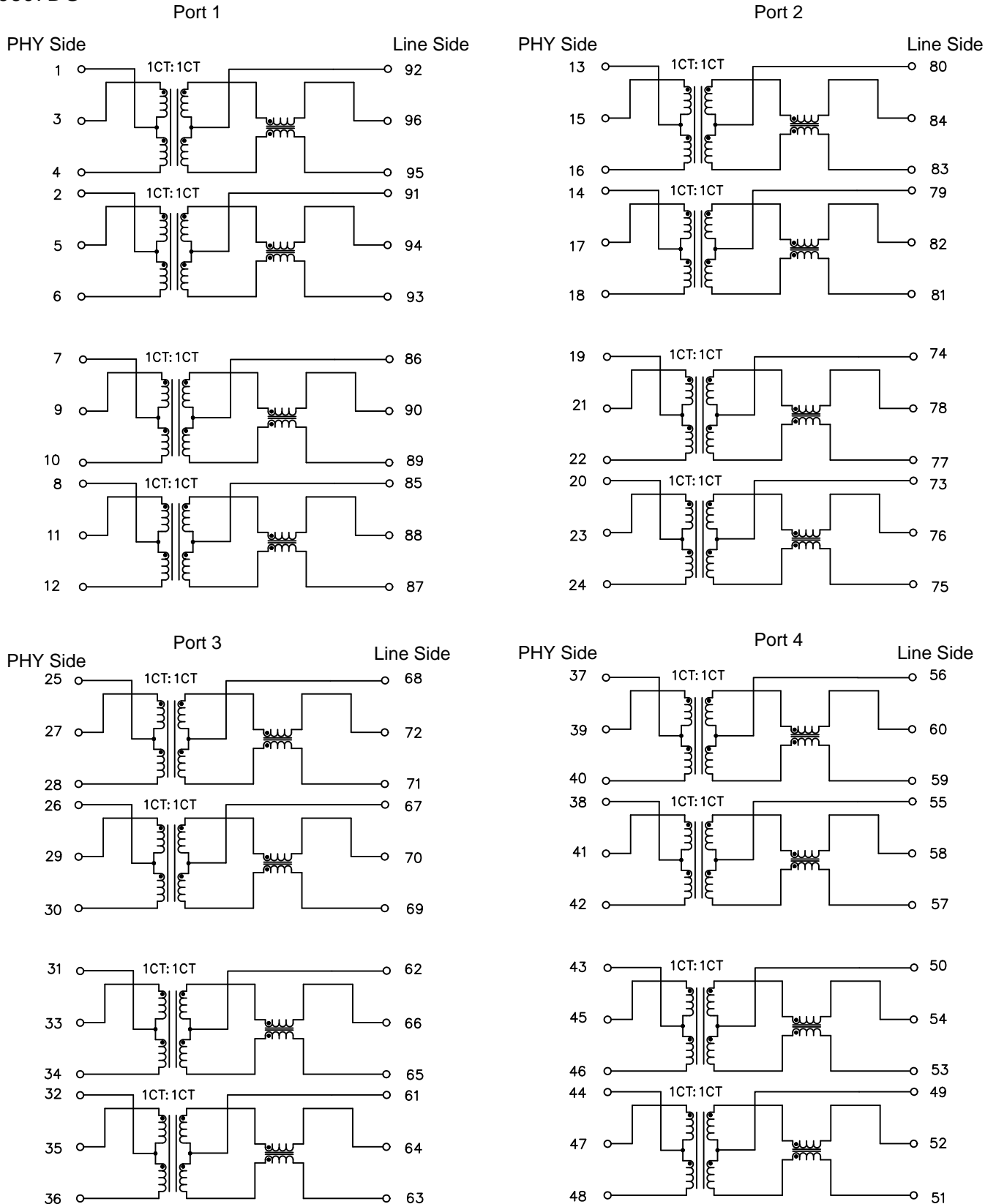
## SCHEMATICS

G9601DG



## SCHEMATICS

G9607DG



- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.

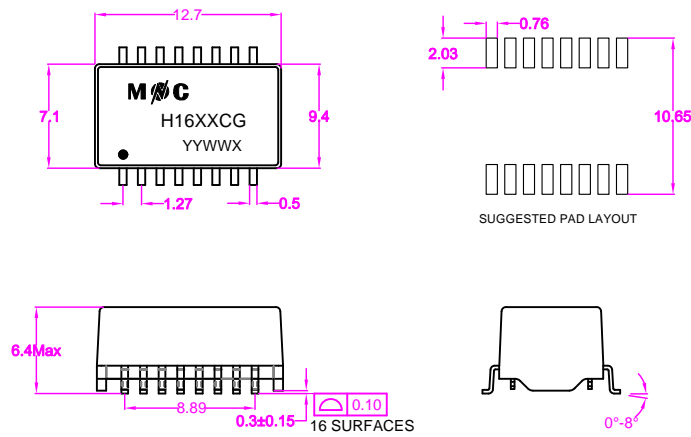


## Electrical Specifications @25°C

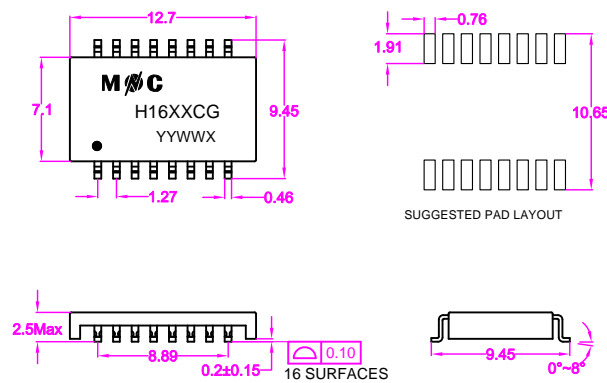
| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |     | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|-----|--------------------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            |     |                                |                  |
| H1601CG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H1604CG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |
| H1631CG     | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |

## MECHANICAL

H1601CG H1604CG



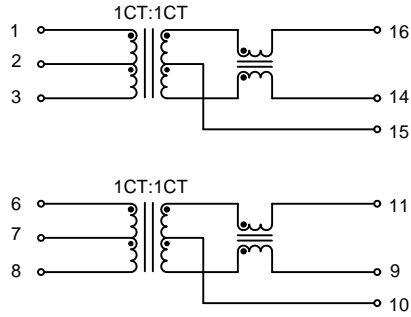
H1631CG



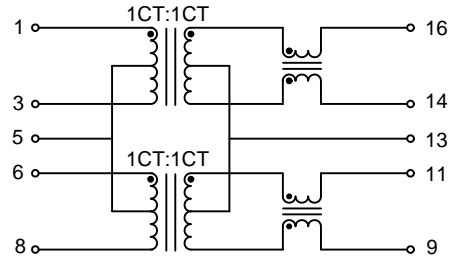
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

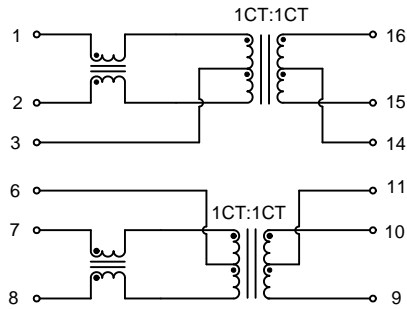
H1601CG



H1604CG



H1631CG

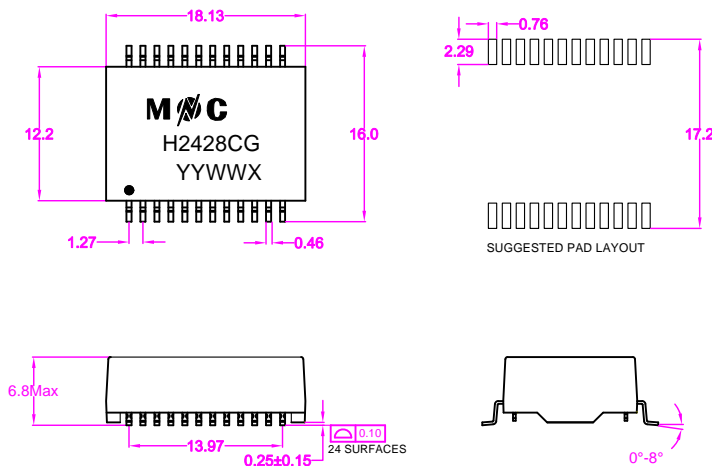


- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.



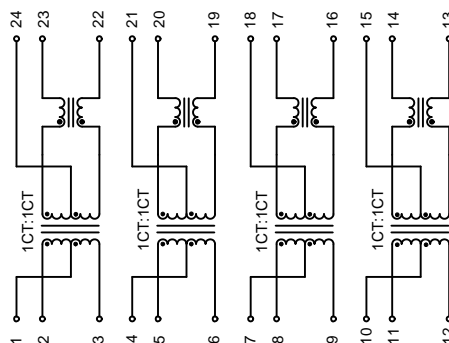
| Electrical Specifications @25°C |  |                      |                            |           |                         |            |           |                        |            |                  |                  |
|---------------------------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|------------|------------------|------------------|
| Part Number                     | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |            | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            | 0.5-100MHz |                  |                  |
| H2428CG                         | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30        | 1500             |                  |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



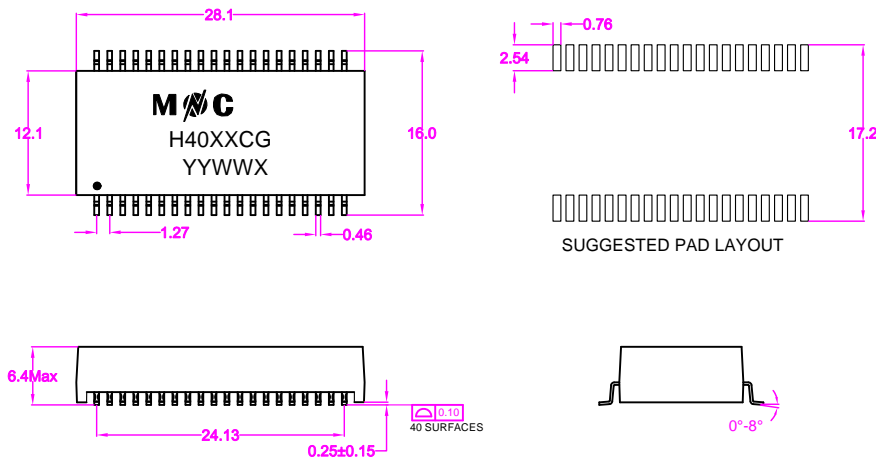
- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.



| Electrical Specifications @25°C |  |                      |                            |           |                         |            |           |                        |     |                                |                  |
|---------------------------------|--|----------------------|----------------------------|-----------|-------------------------|------------|-----------|------------------------|-----|--------------------------------|------------------|
| Part Number                     | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            |           | Cross talk<br>(dB Min) |     | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|                                 |  |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz | 40.1-100MHz            |     |                                |                  |
| H4001CG                         | 350uH  | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35       | -33+20*log(f/50)       | -30 | 1500                           |                  |

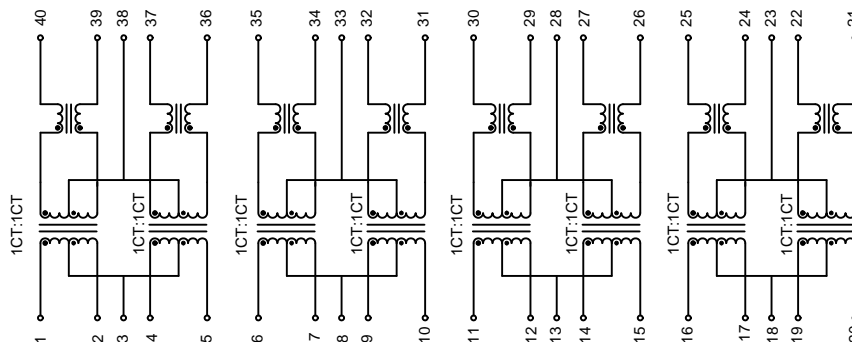
## MECHANICAL

H4001CG



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



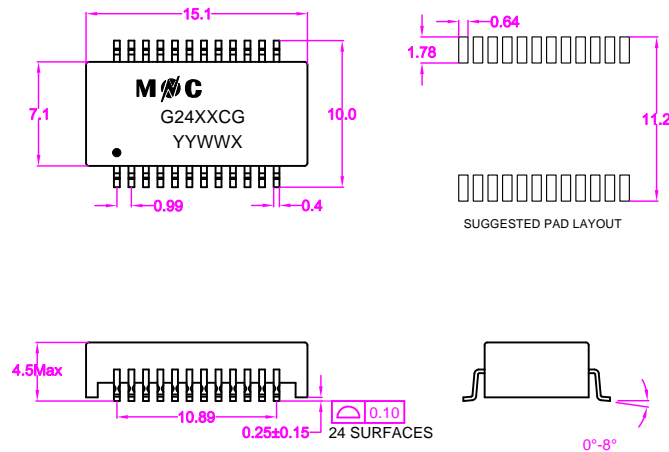
- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.



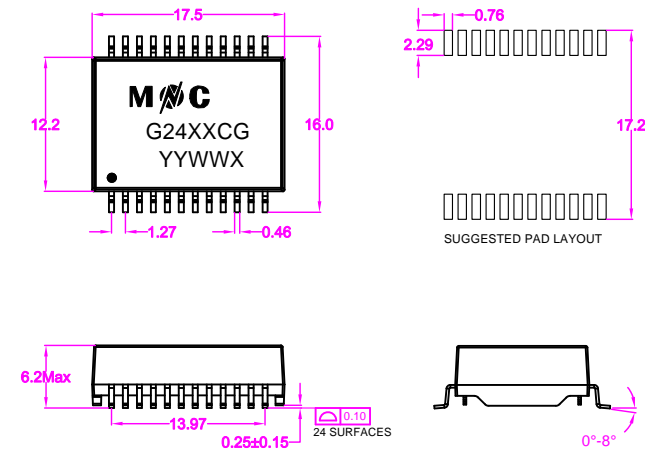
| Electrical Specifications @25°C |  |                      |                            |                         |                  |                        |                  |                  |                  |
|---------------------------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
| Part Number                     | OCL(μH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 |  |                      | 0.5-100MHz                 | 0.5-40MHz               | 10.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      |                  |                  |
| G2401CG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G2405CG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G2497CG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G2480AG                         | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

## MECHANICAL

### G2401CG



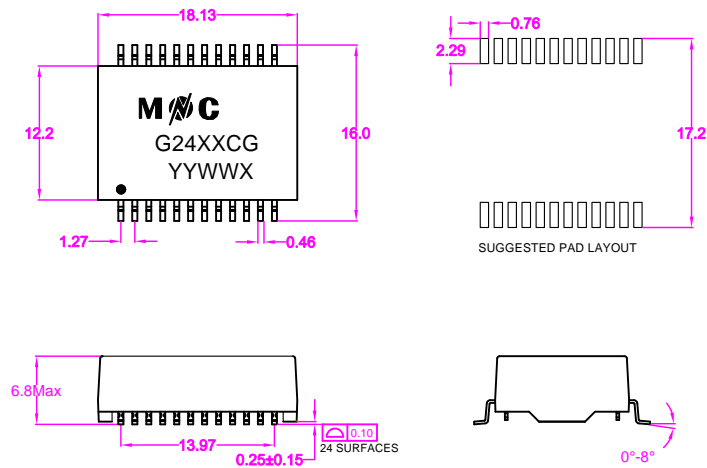
### G2405CG



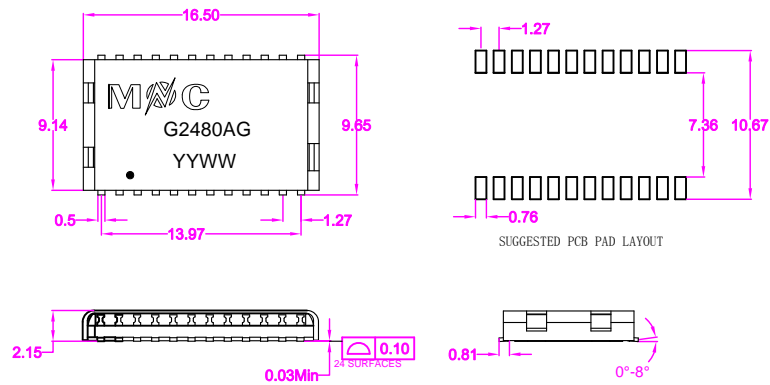
Unless otherwise specified all tolerances are:±0.25 in mm

## MECHANICAL

### G2497CG



### G2480AG

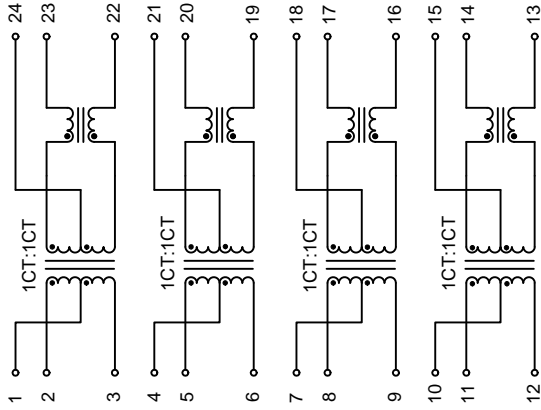


Unless otherwise specified all tolerances are:±0.25 in mm

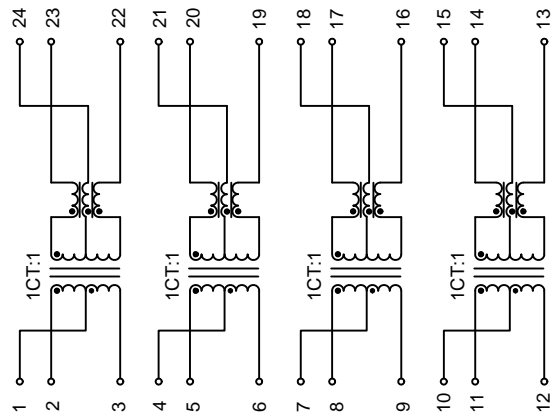


## SCHEMATICS

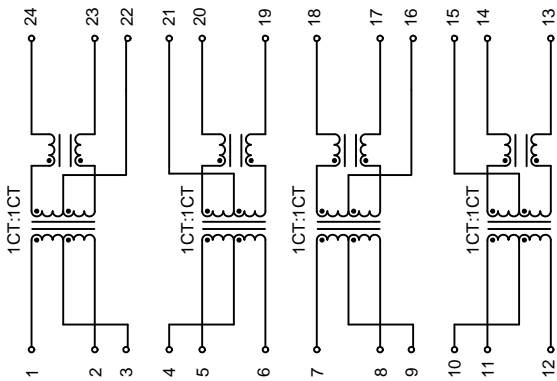
G2401CG, G2405CG



G2497CG



G2480AG



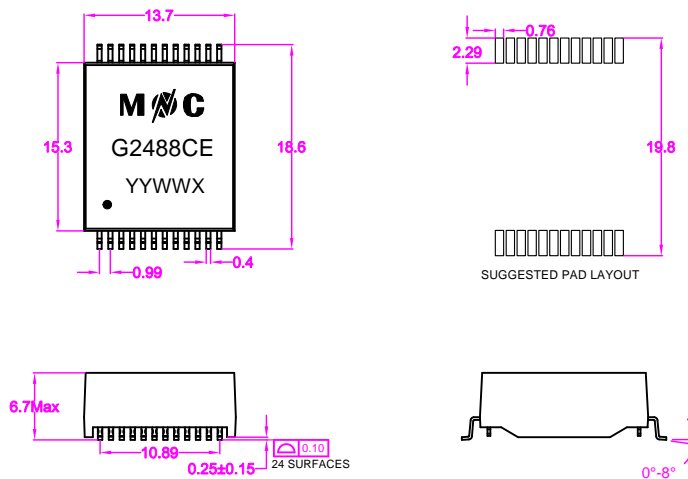
- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header.
- Operating temperature range: -40°C to +85°C.



## Electrical Specifications @25°C

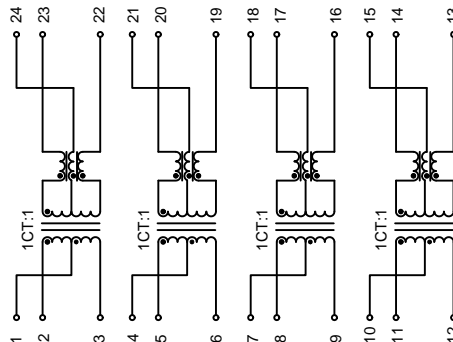
| Part Number | OCL(μH)<br>100KHz, 0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |           | Cross talk<br>(dB Min) |            | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|---|----------------------|----------------------------|-----------|-------------------------|-----------|------------------------|------------|------------------|------------------|
|             |   |                      | 0.5-100MHz                 | 0.5-40MHz | 10.1-100MHz             | 0.5-40MHz | 40.1-100MHz            | 0.5-100MHz |                  |                  |
| G2488CE     | 350uH   | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -35       | -33+20*log(f/50)       | -30        | 1500             |                  |

## MECHANICAL



Unless otherwise specified all tolerances are: ±0.25 in mm

## SCHEMATICS



- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.

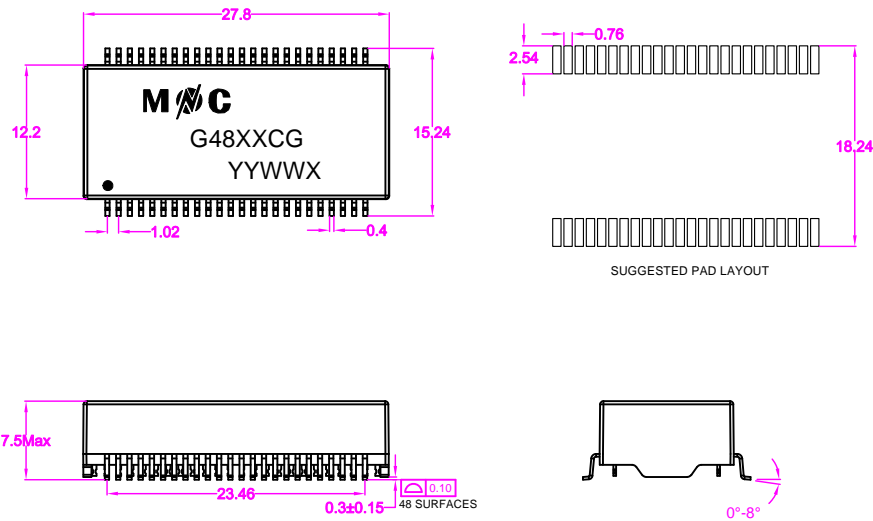


### Electrical Specifications @25°C

| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
|             | 0.5-100MHz                                     |                      | 0.5-40MHz                  | 10.1-100MHz             | 0.5-40MHz        | 40.1-100MHz            | 0.5-100MHz       |                  |                  |
| G4802CG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |
| G4812CG     | 350uH  | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -35                    | -33+20*log(f/50) | -30              | 1500             |

## MECHANICAL

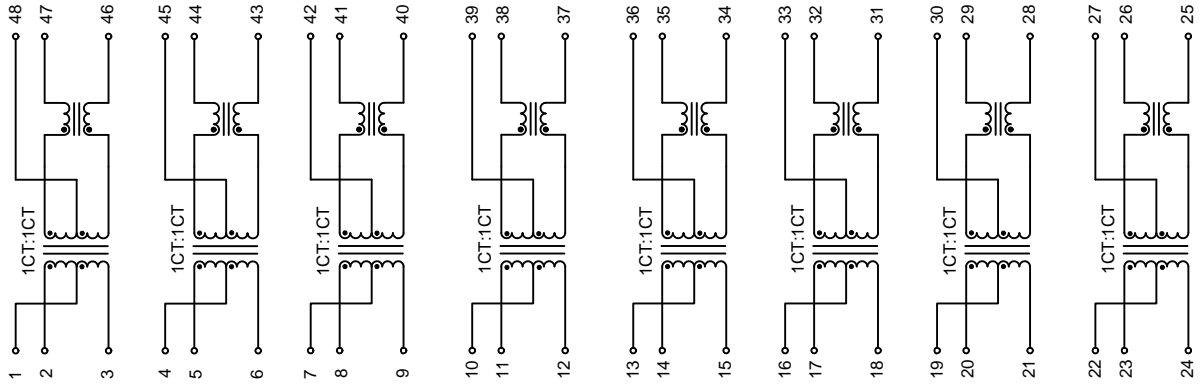
G4802CG ,G4812CG



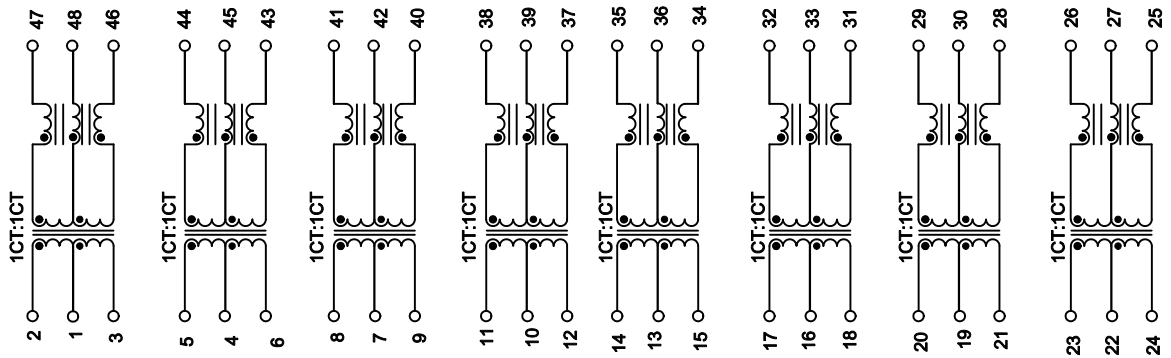
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

G4802CG



G4812CG



- Meets IEEE 802.3 & ANSI X 3.263 Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.

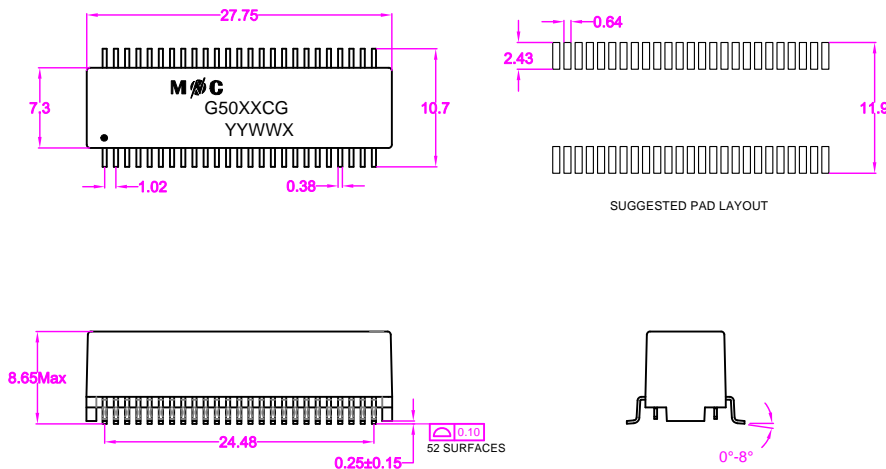


## Electrical Specifications @25°C

| Part Number | OCL(uH)<br>100KHz,0.1Vrms,<br>With 8mA DC Bias | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |             | Return Loss<br>(dB Min) |             | Cross talk<br>(dB Min) |            | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|--|----------------------|----------------------------|-------------|-------------------------|-------------|------------------------|------------|------------------|------------------|
|             |  |                      | 0.5-100MHz                 | 10.1-100MHz | 0.5-40MHz               | 40.1-100MHz | 0.5-100MHz             | 0.5-100MHz |                  |                  |
| G5002CG     | 350uH  | 1CT:1CT              | -1.1                       | -18         | -18+20*log(f/30)        | -35         | -33+20*log(f/50)       | -30        | 1500             |                  |
| G5007CG     | 350uH  | 1CT:1CT              | -1.1                       | -18         | -18+20*log(f/30)        | -35         | -33+20*log(f/50)       | -30        | 1500             |                  |

## MECHANICAL

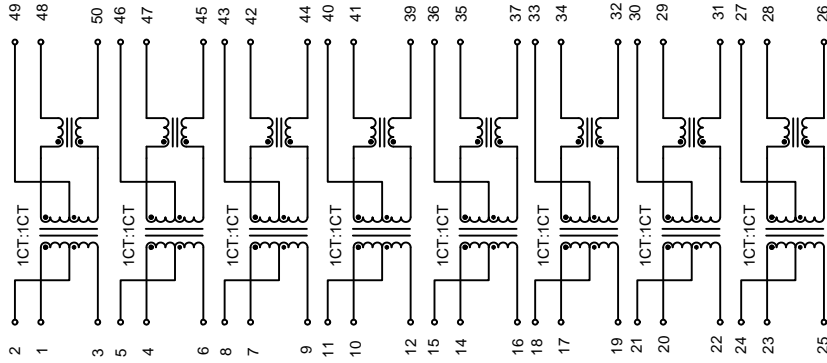
G5002CG ,G5007CG



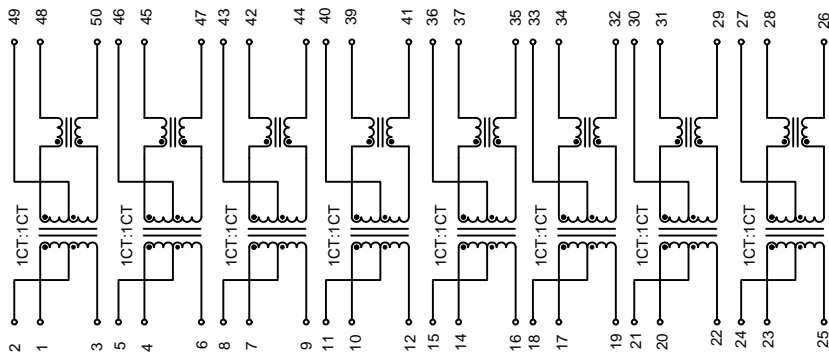
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

G5002CG



G5007CG

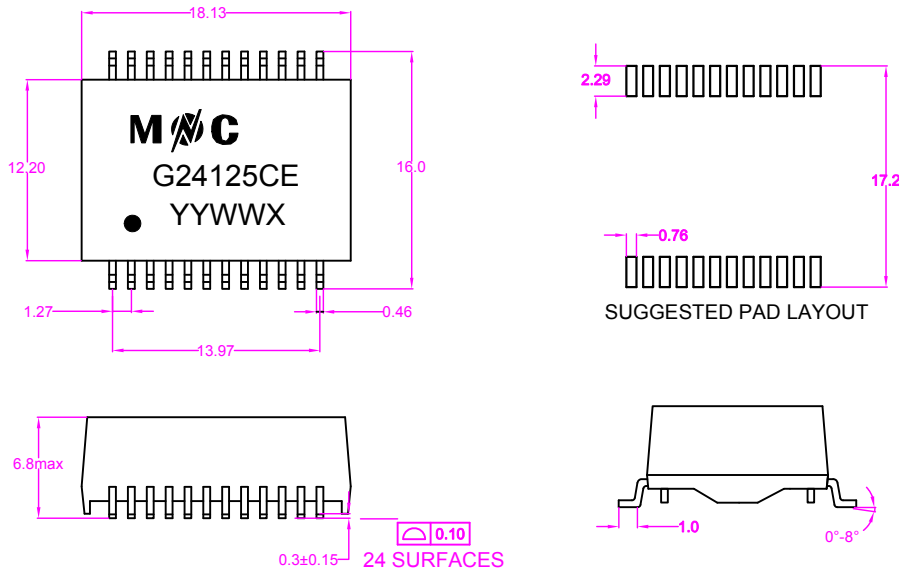


- Meets IEEE 802.3bz Standards.
- 2.5G Base-T, Surface Mount Type, Open Header.
- 720mA Current Capability Per POE Port/ Two-pair.
- RoHS Compliant.
- Operating temperature range: -40°C to +85°C.



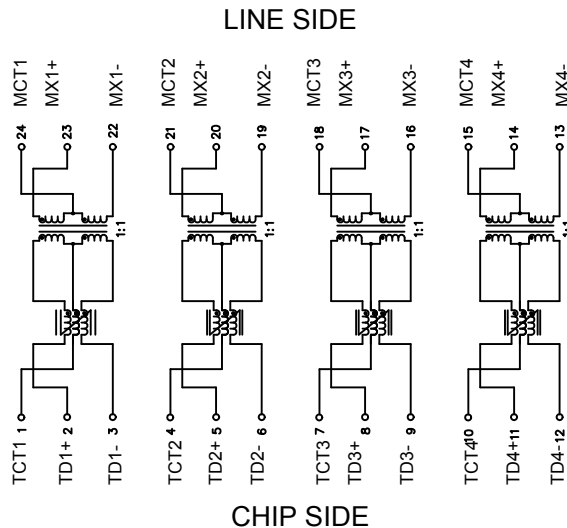
| Electrical Specifications @25°C |                              |   |                   |                         |            |                                      |                       |                          |                            |
|---------------------------------|------------------------------|---|-------------------|-------------------------|------------|--------------------------------------|-----------------------|--------------------------|----------------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz, 0.1V | Return Loss (dB Min)<br>Z OUT = 100 OHM±15% |                   | Cross talk (dB Min)     |            | REJECTION RATIO COMMON MODE (dB Min) |                       |                          |                            |
|                                 | With 15mA DC Bias            | 1-40MHz                                     | 40.1-200MHz       | 1-125MHz                | 125-200MHz | 30-200MHz                            |                       |                          |                            |
| G24125CE                        | 180                          | -20   | -20+15*log(f/40)  | -30                     | -22        | -30                                  |                       |                          |                            |
|                                 | <b>Continue</b>              |   |                   |                         |            |                                      |                       |                          |                            |
|                                 | DCR                          |   | Turns Ratio (±2%) | Insertion Loss (dB Max) |            |                                      | DC RESISTANCE BALANCE | C <sub>sw</sub> (pF TYP) | HI-POT (V <sub>rms</sub> ) |
|                                 | CHIP(Ω max)                  | CABLE (Ω max)                               |                   | 1-50M                   | 50-125MHz  | 125-200MHz                           |                       |                          |                            |
| 1.65                            | 0.5                          | 1CT:1CT                                     | -0.5              | -1.0                    | 2.0        | ±.05 OHMS MAX                        | 100 KHz, 0.2v         | 1500                     |                            |
|                                 |                              |   |                   |                         |            | CENTER TAP SYMMETRY                  | 25                    |                          |                            |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



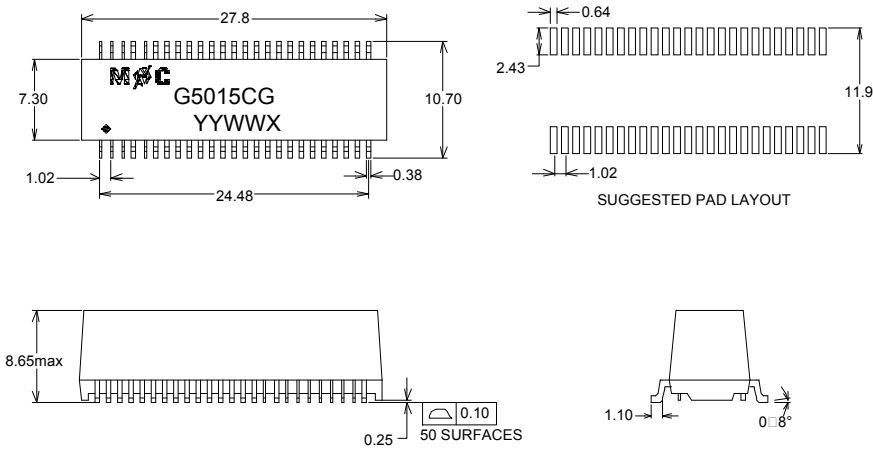
- Meets IEEE 802.3bz Standards.
- RoHS Compliant.
- 1A Current Capability Per POE Port/Two Pairs.
- 2.5G Base-T, Surface Mount Type, Open Header.
- Operating temperature range: 0°C to +70°C .



### Electrical Specifications @25°C

| Part Number | OCL(μH Min) @100KHz,0.2V | Turns Ratio (±5%) | Insertion Loss (dB Max) |            | Return Loss (dB Min) |                  | Cross talk (dB Min) |            | CMRR (dB Min) 30-200MHz | HI-POT (Vrms) |
|-------------|--------------------------|-------------------|-------------------------|------------|----------------------|------------------|---------------------|------------|-------------------------|---------------|
|             |                          |                   | 1-125MHz                | 125-250MHz | 1-40MHz              | 40-200MHz        | 1-100MHz            | 100-200MHz |                         |               |
| G5015CG     | 150                      | 1CT:1CT           | -1                      | -2         | -16                  | -16+10*log(f/40) | -35                 | -25        | -25                     | 1500          |

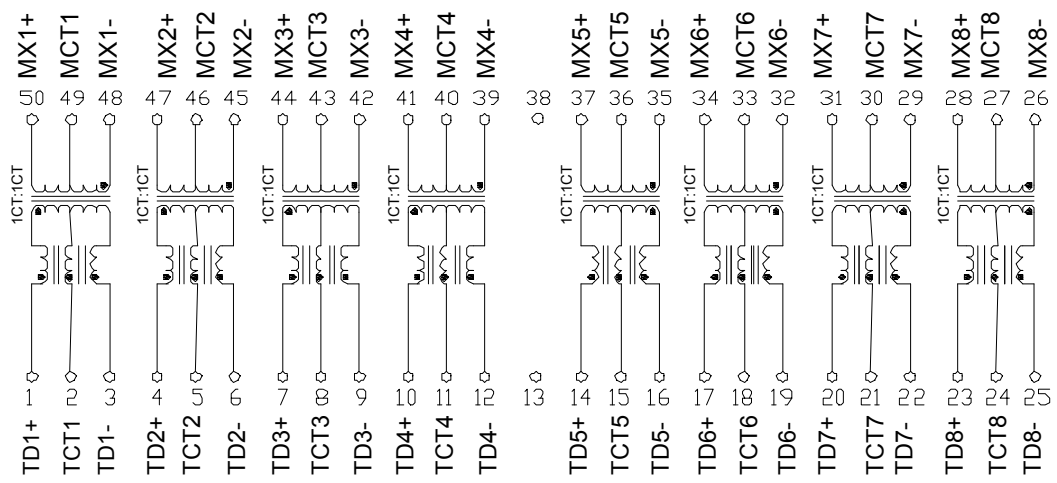
## MECHANICAL



Unless otherwise specified all tolerances are: ±.25 in mm

## SCHEMATICS

### LINE SIDE



### CHIP SIDE

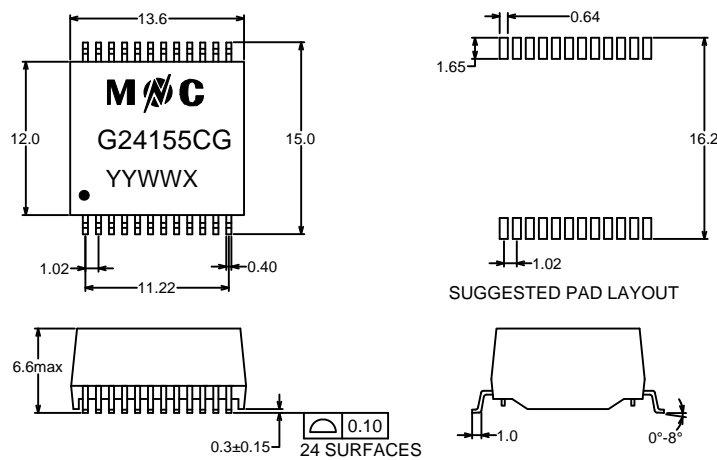


- Meets IEEE 802.3bz Standards.
- RoHS Compliant.
- 5G Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.
- 360mA Current Capability Per POE Port / Two-pair.



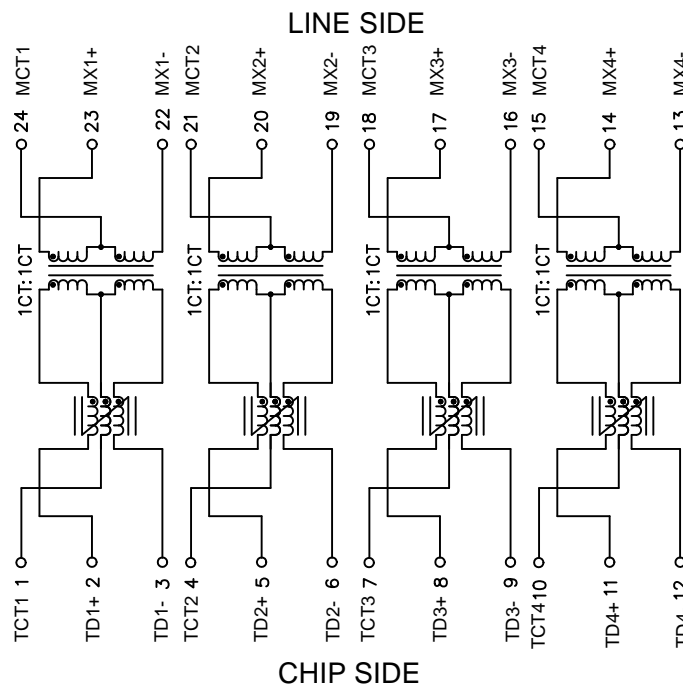
| Electrical Specifications @25°C |                             |  |                      |                            |           |            |                         |                    |                        |                  |                  |      |
|---------------------------------|-----------------------------|--|----------------------|----------------------------|-----------|------------|-------------------------|--------------------|------------------------|------------------|------------------|------|
| Part Number                     | OCL(uH Min)<br>@100KHz,0.1V | OCL(uH Min)<br>@100KHz,0.1V<br>With 10.8mA DC Bias | Turns Ratio<br>(±2%) | Insertion Loss<br>(dB Max) |           |            | Return Loss<br>(dB Min) |                    | Cross talk<br>(dB Min) | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |      |
|                                 |                             |  |                      | 1-50MHz                    | 50-125MHz | 125-250MHz | 1-40MHz                 | 40-250MHz          |                        |                  |                  |      |
| G24155CG                        | 180                         | 150  | 1CT:1CT              | -0.5                       | -1.0      | -1.5       | -20                     | -20+12.5*log(f/40) | -30                    | -20              | -30              | 1500 |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

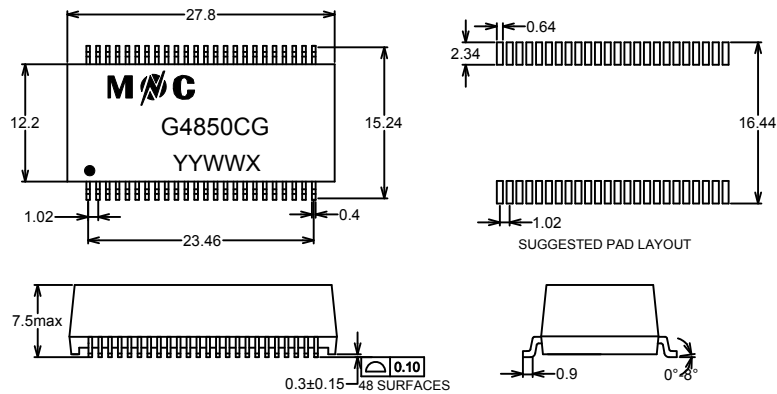


- Meets IEEE 802.3bz Standards.
- RoHS Compliant.
- 5G Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.
- 1A Current Capability Per POE Port/Two Pairs



| Electrical Specifications @25° C |                          |             |             |             |                         |        |                      |                  |                     |            |               |            |               |
|----------------------------------|--------------------------|-------------|-------------|-------------|-------------------------|--------|----------------------|------------------|---------------------|------------|---------------|------------|---------------|
| Part Number                      | OCL(uH Min) @100KHz,0.1V | Turns Ratio | LK (uH max) | DCR (Ω Max) | Insertion Loss (dB Max) |        | Return Loss (dB Min) |                  | Cross talk (dB Min) |            | CMRR (dB Min) |            | HI-POT (Vrms) |
|                                  |                          |             | 100KHz 0.2v | 25°C        | 1-100MHz                | 375MHz | 1-40MHz              | 40-375MHz        | 1-100MHz            | 100-375MHz | 0.1-250MHz    | 250-375MHz | 2mA 60S       |
| G4850CG                          | 120                      | 1CT:1CT     | 0.5         | 1.4         | -1.0                    | -1.5   | -18                  | -17+10*log(f/40) | -40                 | -30        | -30           | -22        | 1500          |

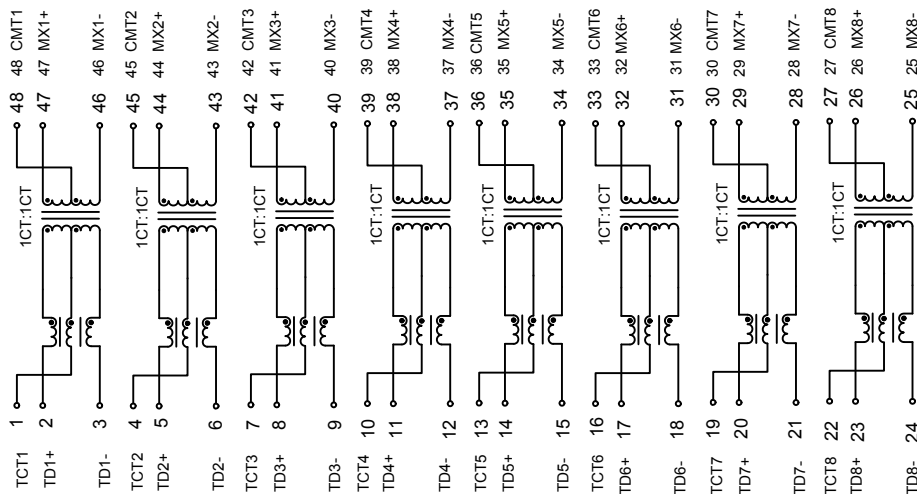
## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

### LINE SIDE



### CHIP SIDE

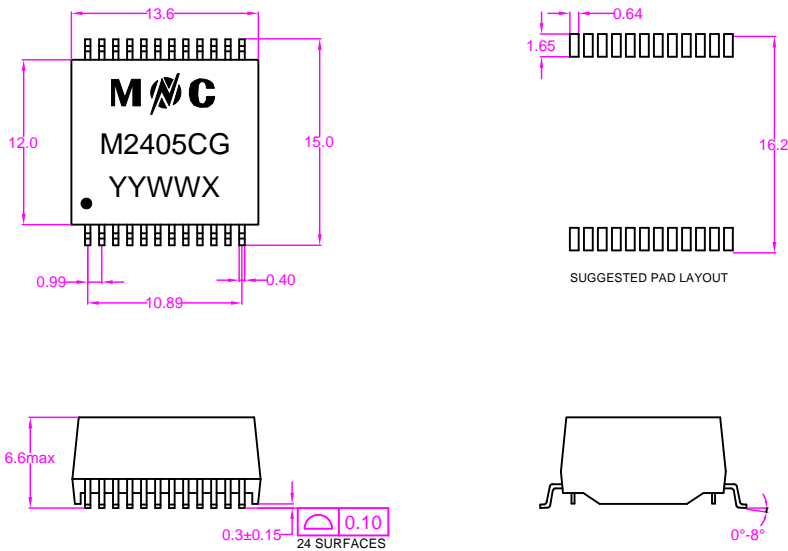
- Meets IEEE 802.3an Standards.
- RoHS Compliant.
- 10G Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.



## Electrical Specifications @25°C

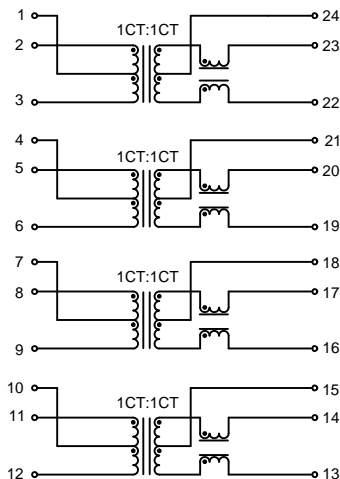
| Part Number | OCL(uH Min)<br>@100KHz,0.1V | Turns Ratio<br>(±5%) | Insertion Loss<br>(Max) |          |        | Return Loss<br>(Max) |                  | Common to Differential<br>Mode Rejection<br>(Max) |            | Cross talk<br>(Max) |            | Hi-Pot<br>(Vrms) |
|-------------|-----------------------------|----------------------|-------------------------|----------|--------|----------------------|------------------|---|------------|---------------------|------------|------------------|
|             |                             |                      | 100KHz                  | 1-400MHz | 500MHz | 1-40MHz              | 40-500MHz        | 1-250MHz  | 250-500MHz | 1-100MHz            | 100-500MHz |                  |
| M2405CG     | 120uH (Typ)                 | 1CT:1CT              | -3.0                    | -1.5     | -3.0   | -18                  | -17+10*log(f/40) | -30   | -22        | -40                 | -30        | 1500             |





## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



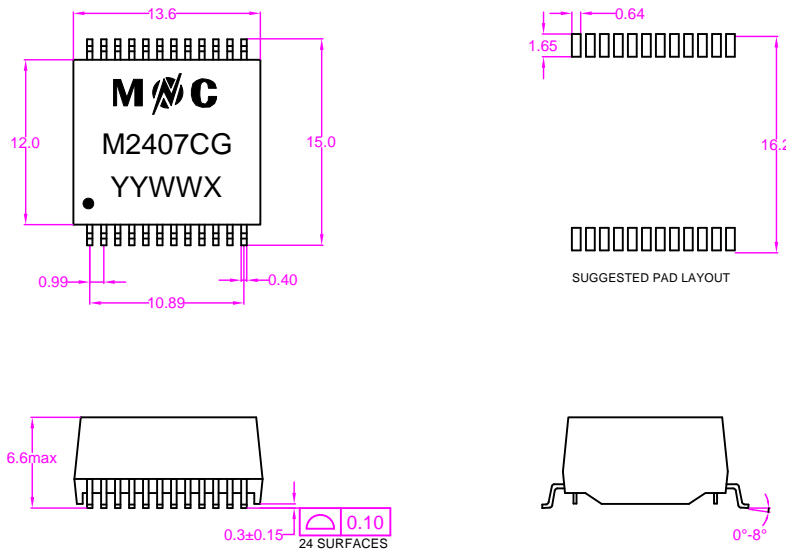
-  Meets IEEE 802.3an Standards.
-  RoHS Compliant.
-  10G Base-T, Surface Mount Type, Open Header .
-  Operating temperature range: 0°C to +70°C.



## Electrical Specifications @25°C

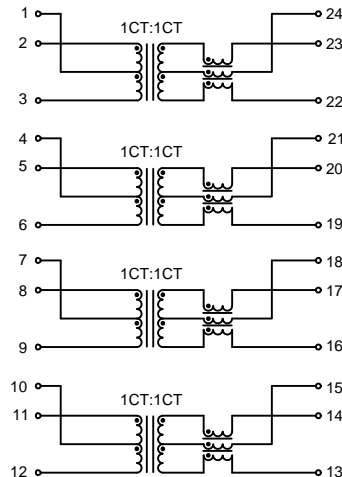
| Part Number | OCL(uH Min)<br>@100KHz,0.1V | Turns Ratio<br>(±5%) | Insertion Loss<br>(Max) |          |        | Return Loss<br>(Max) |                  | Common to Differential<br>Mode Rejection<br>(Max) |            | Cross talk<br>(Max) |            | Hi-Pot<br>(Vrms) |
|-------------|-----------------------------|----------------------|-------------------------|----------|--------|----------------------|------------------|---|------------|---------------------|------------|------------------|
|             |                             |                      | 100KHz                  | 1-400MHz | 500MHz | 1-40MHz              | 40-500MHz        | 1-250MHz  | 250-500MHz | 1-100MHz            | 100-500MHz |                  |
| M2403CG     | 120uH (Typ)                 | 1CT:1CT              | -3.0                    | -1.5     | -3.0   | -18                  | -17+10*log(f/40) | -30   | -22        | -40                 | -30        | 1500             |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



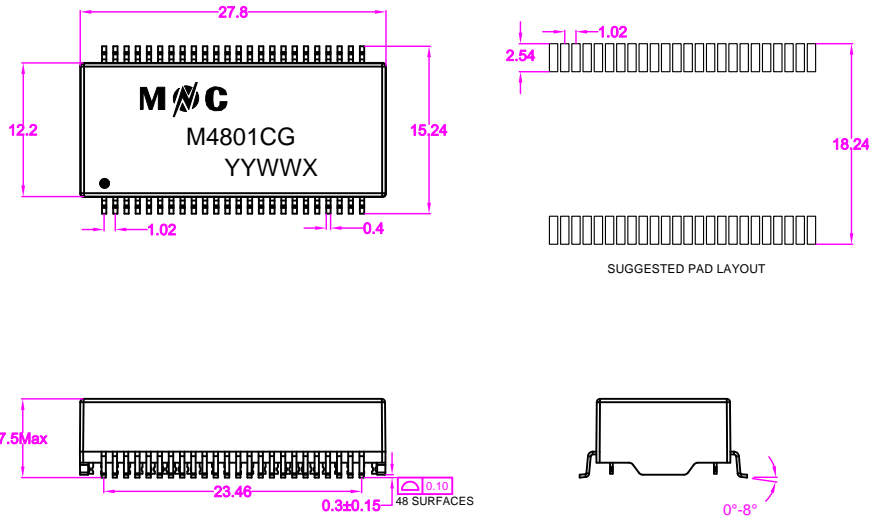
- Meets IEEE 802.3an Standards.
- RoHS Compliant.
- 10G Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.



## Electrical Specifications @25°C

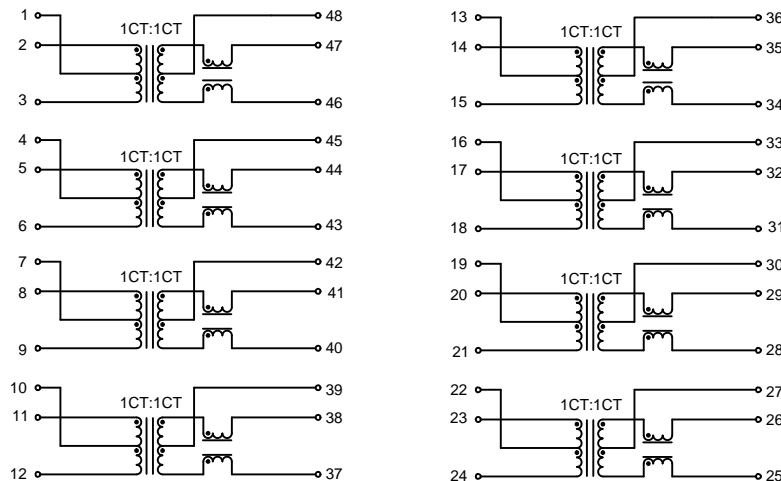
| Part Number | OCL(uH Min)<br>@100KHz,0.1V | Turns Ratio<br>(±5%) | Insertion Loss<br>(Max) |          |        | Return Loss<br>(Max) |                  | Common to Differential<br>Mode Rejection<br>(Max) |            | Cross talk<br>(Max) |            | Hi-Pot<br>(Vrms) |
|-------------|-----------------------------|----------------------|-------------------------|----------|--------|----------------------|------------------|---|------------|---------------------|------------|------------------|
|             |                             |                      | 100KHz                  | 1-400MHz | 500MHz | 1-40MHz              | 40-500MHz        | 1-250MHz  | 250-500MHz | 1-100MHz            | 100-500MHz |                  |
| M4801CG     | 120uH (Typ)                 | 1CT:1CT              | -3.0                    | -1.5     | -3.0   | -18                  | -17+10*log(f/40) | -30   | -22        | -40                 | -30        | 1500             |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

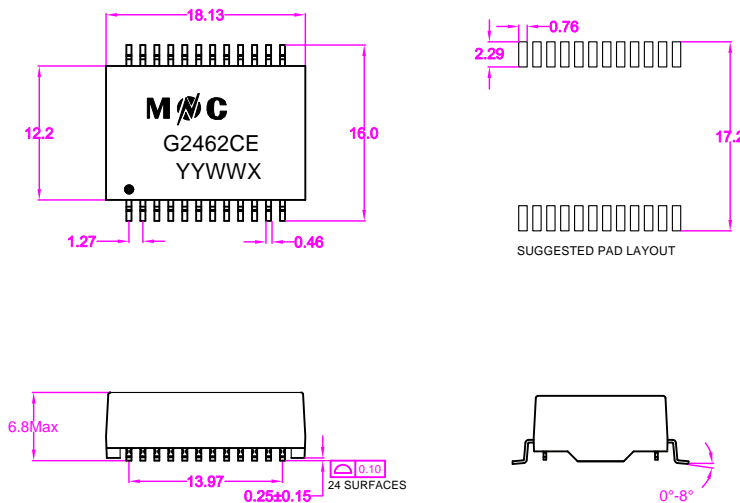


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 720mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: -40°C to +85°C.



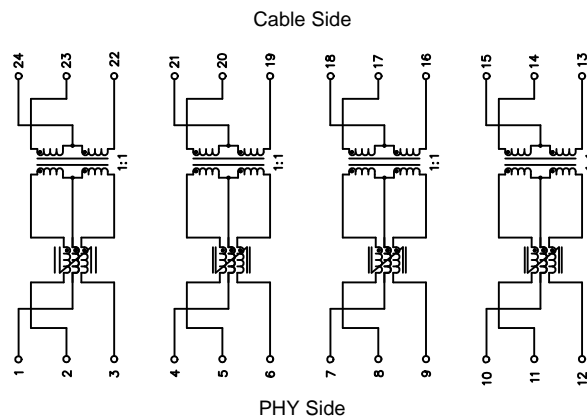
| Electrical Specifications @25°C |  |   |                         |                     |                            |                                     |                   |
|---------------------------------|--|---|-------------------------|---------------------|----------------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(μH Min)<br>@100KHz, 0.1V<br>With 21mA DC Bias @25°C        | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                         | Cross talk (dB Min) |                            | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |  | 1-40MHz                                     | 40.1-100MHz             | 1MHz                | 10-100MHz                  | 2MHz                                | 30-200MHz         |
|                                 | 350  | -16   | -10+20*log(f/80)        | -50                 | -55+22*log(f/10)           | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |  |   |                         |                     |                            |                                     |                   |
| G2462CE                         | OCL(μH Min)<br>@100KHz, 0.1V<br>With 21mA DC Bias @-40°C&+85°C | Turns Ratio<br>(±2%)                        | Insertion Loss (dB Max) |                     | DC RESISTANCE BALANCE      | C <sub>ww</sub> (pF TYP)            | HI-POT<br>(Vrms)  |
|                                 |  |   | 100KHz                  | 1-125MHz            |                            |                                     |                   |
|                                 |  | 300   | 1CT:1CT                 | -1.2                | -0.2-0.002f <sup>1.4</sup> | ±.05 OHMS Max                       | 1MHz              |
|                                 |  |   |                         |                     | CENTER TAP SYMMETRY        | 25                                  |                   |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

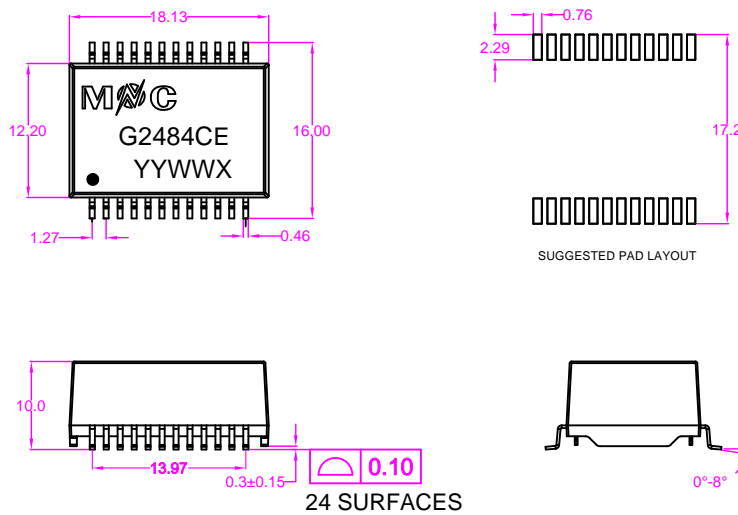


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 850mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: -40°C to +85°C.



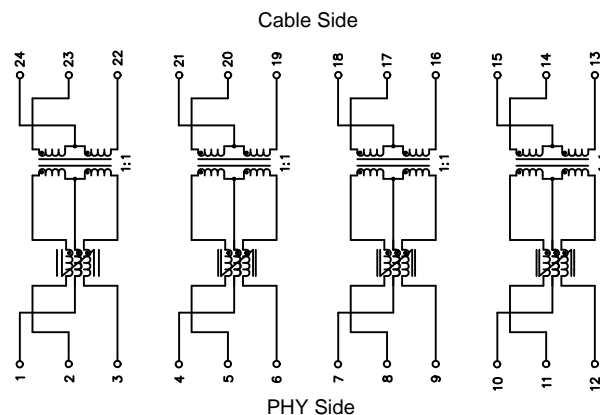
| Electrical Specifications @25°C |  |   |                         |                            |                       |                                     |                   |
|---------------------------------|--|---|-------------------------|----------------------------|-----------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(μH Min)<br>@100KHz, 0.1V<br>With 25mA DC Bias @25°C        | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                         | Cross talk (dB Min)        |                       | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |  | 1-40MHz                                     | 40.1-100MHz             | 1MHz                       | 10-100MHz             | 2MHz                                | 30-200MHz         |
|                                 | 350  | -16   | -10+20*log(f/80)        | -50                        | -55+22*log(f/10)      | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |  |   |                         |                            |                       |                                     |                   |
| G2484CE                         | OCL(μH Min)<br>@100KHz, 0.1V<br>With 25mA DC Bias @-40°C&+85°C | Turns Ratio<br>(±2%)                        | Insertion Loss (dB Max) |                            | DC RESISTANCE BALANCE | C <sub>sw</sub> (pF TYP)            | HI-POT<br>(Vrms)  |
|                                 |  |   | 100KHz                  | 1-125MHz                   | ±.05 OHMS Max         | 1MHz                                |                   |
|                                 | 300  | 1CT:1CT                                     | -1.2                    | -0.2-0.002f <sup>1.4</sup> | CENTER TAP SYMMETRY   | 25                                  | 1500              |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

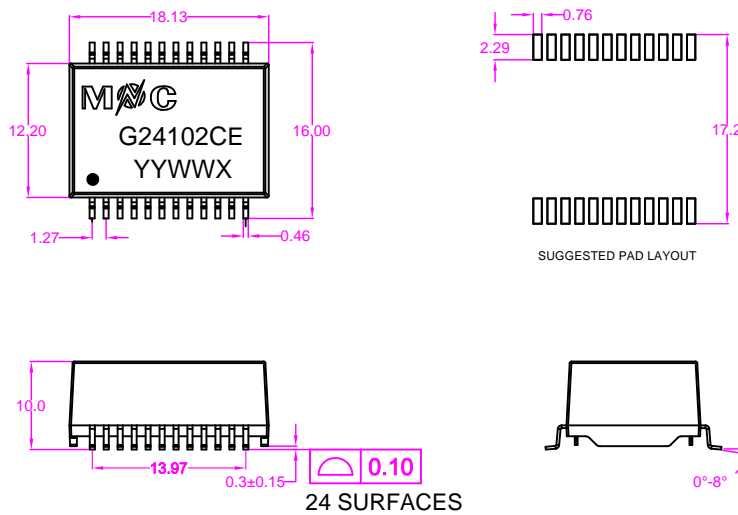


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 1150mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: -40°C to +85°C.



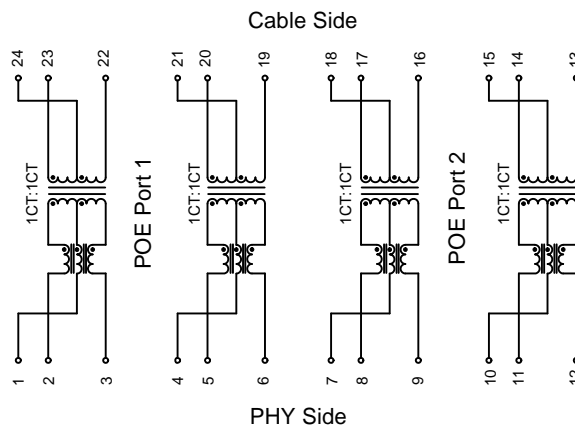
| Electrical Specifications @25°C |   |   |                         |                     |                            |                                     |                   |
|---------------------------------|---|---|-------------------------|---------------------|----------------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(μH Min)<br>@100KHz, 0.1V<br>With 25mA DC Bias@-40°C&+85°C | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                         | Cross talk (dB Min) |                            | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |   | 1-40MHz                                     | 40.1-100MHz             | 1MHz                | 10-100MHz                  | 2MHz                                | 30-200MHz         |
|                                 | 350   | -16   | -10+20*log(f/80)        | -50                 | -55+22*log(f/10)           | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |   |   |                         |                     |                            |                                     |                   |
| G24102CE                        | OCL(μH Min)<br>@100KHz, 0.1V<br>With 35mA DC Bias@-40°C&+85°C | Turns Ratio<br>(±2%)                        | Insertion Loss (dB Max) |                     | DC RESISTANCE BALANCE      | C <sub>ww</sub> (pF TYP)            | HI-POT<br>(Vrms)  |
|                                 |   |   | 100KHz                  | 1-125MHz            |                            |                                     |                   |
|                                 |   | 135   | 1CT:1CT                 | -1.2                | -0.2-0.002f <sup>1.4</sup> | CENTER TAP SYMMETRY                 | 25                |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



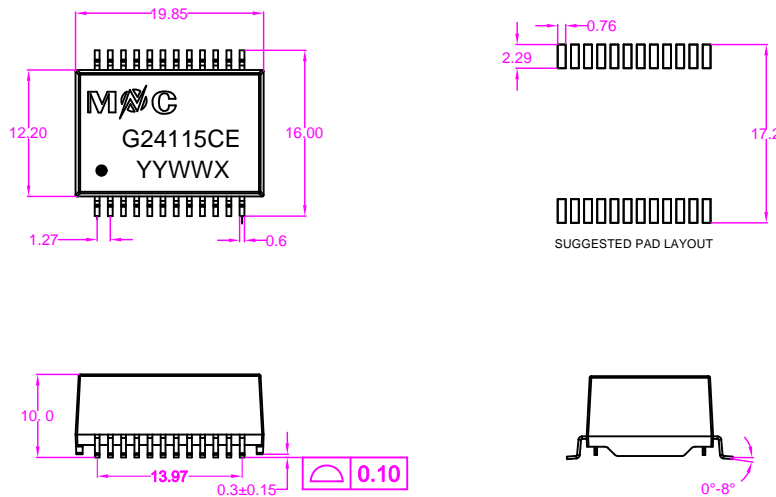


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 1500mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: -40°C to +85°C.



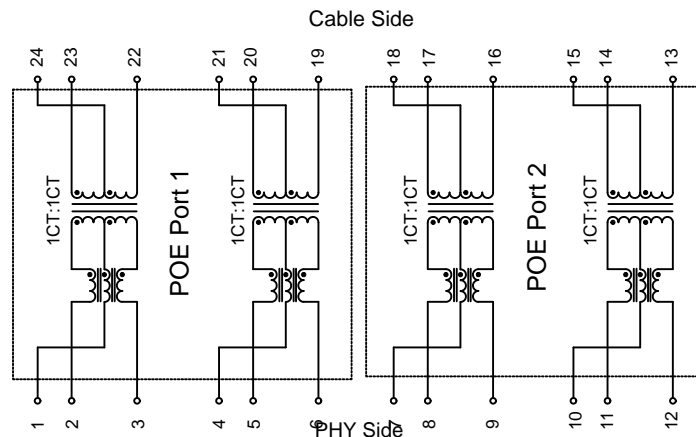
| Electrical Specifications @25°C |   |   |                            |                       |                          |                                     |                   |
|---------------------------------|---|---|----------------------------|-----------------------|--------------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz, 0.1V<br>With 45mA DC Bias @ -40°C&+85°C | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                            | Cross talk (dB Min)   |                          | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |   | 1-40MHz                                     | 40.1-100MHz                | 1MHz                  | 10-100MHz                | 2MHz                                | 30-200MHz         |
|                                 | 200   | -16   | -10+20*log(f/80)           | -50                   | -55+22*log(f/10)         | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |   |   |                            |                       |                          |                                     |                   |
| G24115CE                        | Turns Ratio<br>(±2%)  | Insertion Loss (dB Max)                     |                            | DC RESISTANCE BALANCE | C <sub>ww</sub> (pF TYP) | HI-POT (Vrms)                       |                   |
|                                 |   | 100KHz                                      | 1-125MHz                   | ±.05 OHMS Max         | 1MHz                     |                                     |                   |
|                                 | 1CT:1CT   | -1.2  | -0.2-0.002f <sup>1.4</sup> | CENTER TAP SYMMETRY   | 25                       | 1500                                |                   |

## MECHANICAL



Unless otherwise specified all tolerances are: ±0.25 in mm

## SCHEMATICS

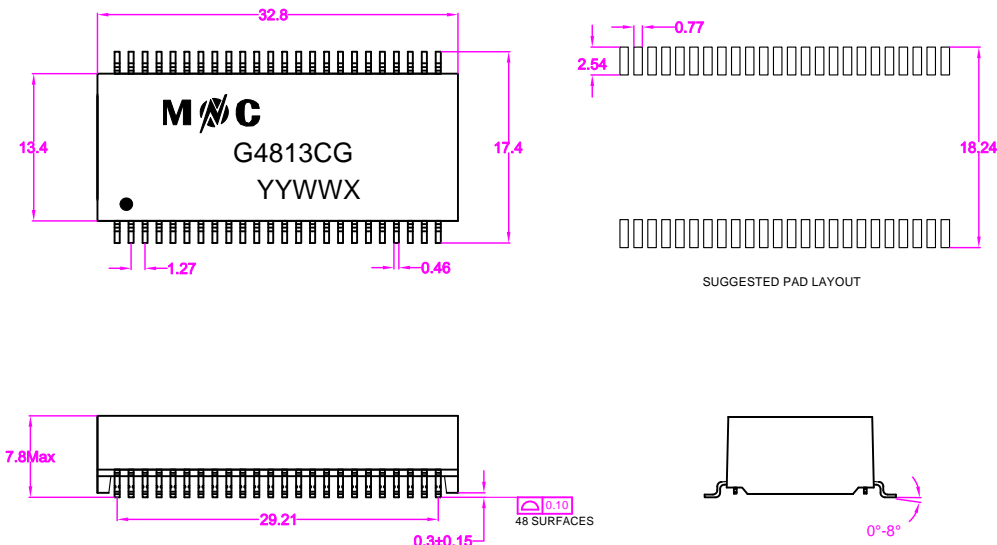


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 720mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: 0°C to +70°C.



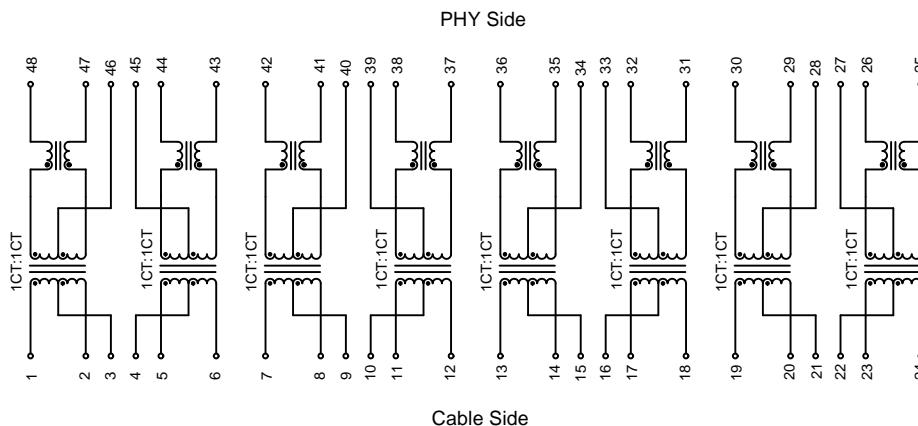
| Electrical Specifications @25°C |   |   |                            |                       |                  |                                     |                   |
|---------------------------------|---|---|----------------------------|-----------------------|------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz, 0.1V<br>With 21mA DC Bias @25°C | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                            | Cross talk (dB Min)   |                  | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |   | 1-40MHz                                     | 40.1-100MHz                | 1MHz                  | 10-100MHz        | 2MHz                                | 30-200MHz         |
|                                 | 350   | -16   | -10+20*log(f/80)           | -50                   | -55+22*log(f/10) | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |   |   |                            |                       |                  |                                     |                   |
| G4813CG                         | Turns Ratio<br>(±2%)                                    | Insertion Loss (dB Max)                     |                            | DC RESISTANCE BALANCE |                  | C <sub>ww</sub> (pF TYP)            | HI-POT (Vrms)     |
|                                 |   | 100KHz                                      | 1-125MHz                   | ±.05 OHMS Max         | 1MHz             |                                     |                   |
|                                 | 1CT:1CT   | -1.2  | -0.2-0.002f <sup>1.4</sup> | CENTER TAP SYMMETRY   | 25               | 1500                                |                   |

## MECHANICAL



Unless otherwise specified all tolerances are: ±0.25 in mm

## SCHEMATICS

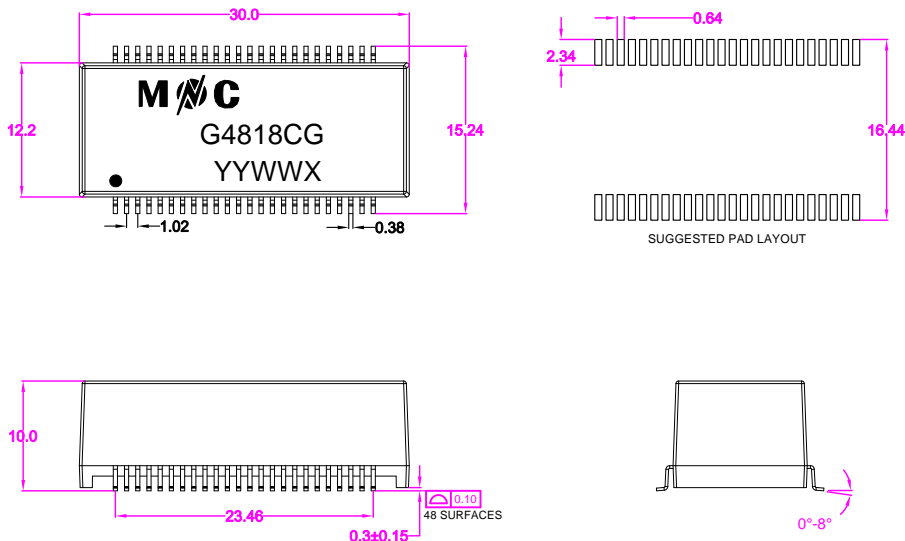


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- 720mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: 0°C to +70°C.



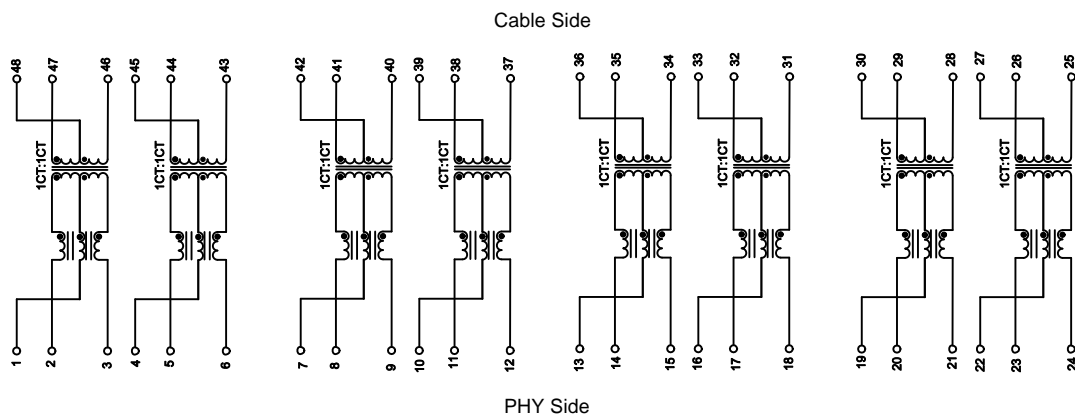
| Electrical Specifications @25°C |  |   |                            |                       |                  |                                     |                   |
|---------------------------------|--|---|----------------------------|-----------------------|------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz, 0.1V<br>With 21mA DC Bias@25°C | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                            | Cross talk (dB Min)   |                  | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |  | 1-40MHz                                     | 40.1-100MHz                | 1MHz                  | 10-100MHz        | 2MHz                                | 30-200MHz         |
|                                 | 350  | -16   | -10+20*log(f/80)           | -50                   | -55+22*log(f/10) | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |  |   |                            |                       |                  |                                     |                   |
| G4818CG                         | Turns Ratio<br>(±2%)                                   | Insertion Loss (dB Max)                     |                            | DC RESISTANCE BALANCE |                  | C <sub>ww</sub> (pF TYP)            | HI-POT<br>(Vrms)  |
|                                 |  | 100KHz                                      | 1-125MHz                   | ±.05 OHMS Max         | 1MHz             |                                     |                   |
|                                 | 1CT:1CT  | -1.2  | -0.2-0.002f <sup>1.4</sup> | CENTER TAP SYMMETRY   | 25               | 1500                                |                   |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

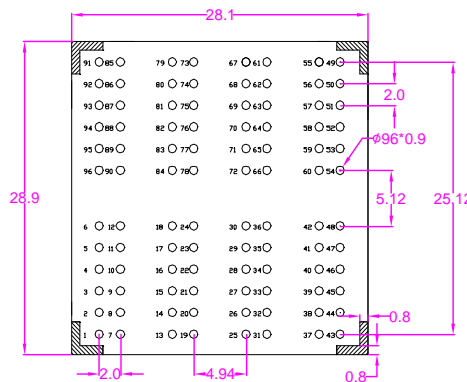
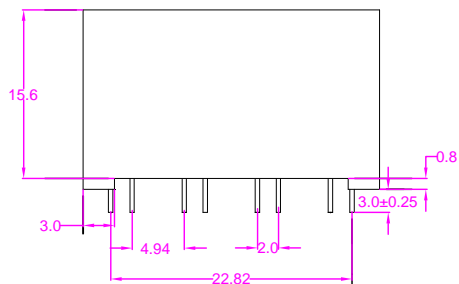
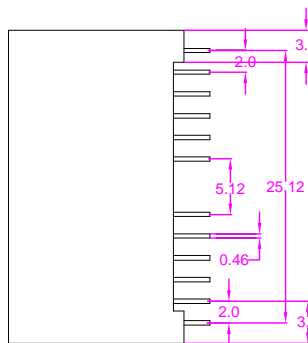
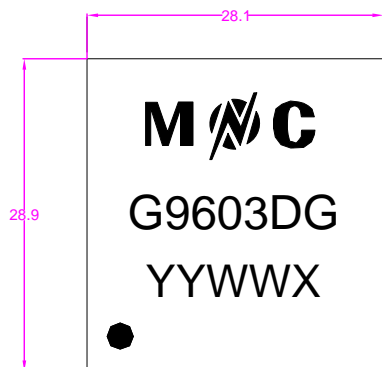


- Meets IEEE 802.3at & ANSI X3.263 Standards.
- Suitable For End-span and Mid-span PoE+ Applications.
- 100/1000 Base-T, Through-Hole Type.
- 700mA Current Capability Per POE Port.
- RoHS Compliant.
- Operating temperature range: 0°C to +70°C.



| Electrical Specifications @25°C |  |   |                            |                       |                     |                                     |                   |
|---------------------------------|--|---|----------------------------|-----------------------|---------------------|-------------------------------------|-------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz, 0.1V<br>With 25mA DC Bias@25°C | Return Loss (dB Min) (Z OUT = 100 OHM ±15%) |                            | Cross talk (dB Min)   |                     | REJECTION RATIO COMMON MODE(dB Min) |                   |
|                                 |  | 1-40MHz                                     | 40.1-100MHz                | 1MHz                  | 10-100MHz           | 2MHz                                | 30-200MHz         |
|                                 | 350  | -16   | -10+20*log(f/80)           | -50                   | -55+22*log(f/10)    | -50                                 | -15+20*log(f/200) |
| <b>Continue</b>                 |  |   |                            |                       |                     |                                     |                   |
| G9603DG                         | Turns Ratio<br>(±2%)                                   | Insertion Loss (dB Max)                     |                            | DC RESISTANCE BALANCE |                     | C <sub>ww</sub> (pF TYP)            | HI-POT<br>(Vrms)  |
|                                 |  | 100KHz                                      | 1-125MHz                   | ±.05 OHMS Max         |                     | 1MHz                                | 1500              |
|                                 | 1CT:1CT  | -1.2  | -0.2-0.002f <sup>1.4</sup> |                       | CENTER TAP SYMMETRY |                                     | 25                |

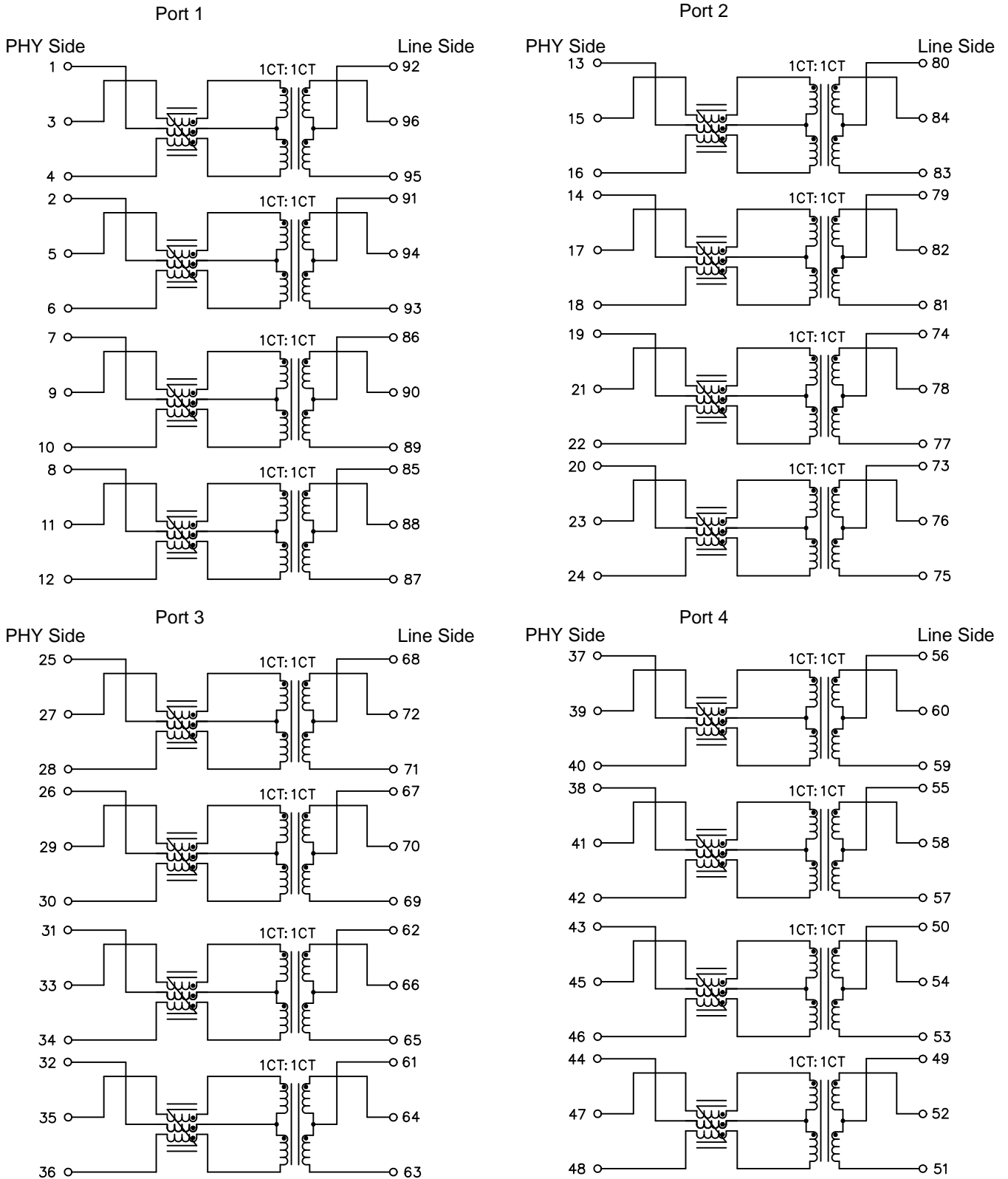
## MECHANICAL



NO COMPONENT AREA.  
Suggested Customer PCB Layout  
(Component Side)

## SCHEMATICS

### G9603DG

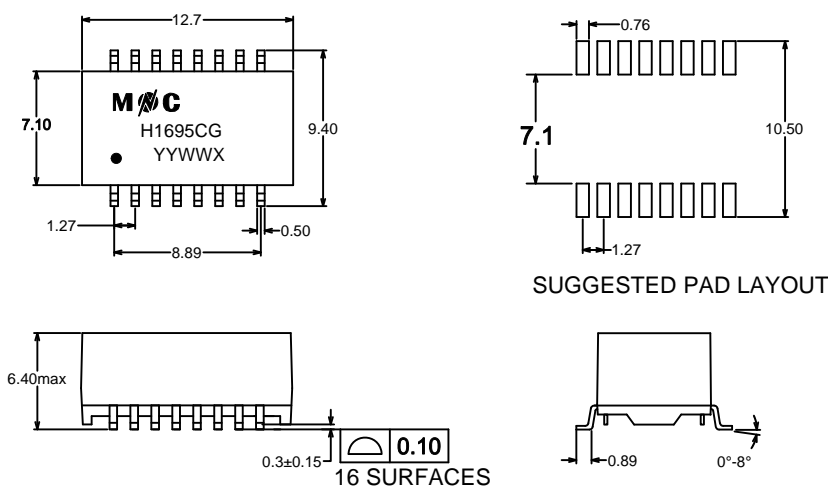


- Meets IEEE 802.3u Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface mount Type, Open Header .
- Operating temperature range: 0°C to +70°C
- Pass 6KV surge(No breakdown during the test)



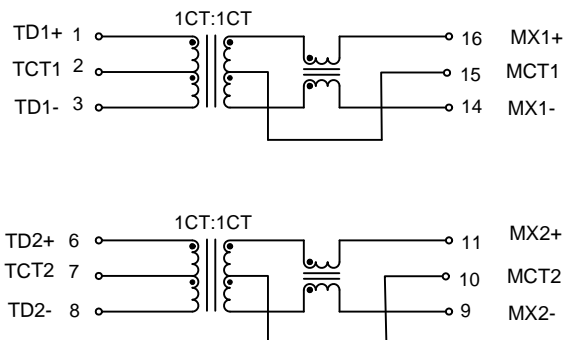
| Electrical Specifications @25°C |                             |                      |                            |                         |                  |            |                        |                  |                  |                  |
|---------------------------------|-----------------------------|----------------------|----------------------------|-------------------------|------------------|------------|------------------------|------------------|------------------|------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz,0.2V | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  |            | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 | With 8mA DC Bias            |                      |                            | 0.5-100MHz              | 0.5-30MHz        | 30.1-60MHz | 60.1-80MHz             | 0.5-40MHz        |                  |                  |
| H1695CG                         | 350                         | 1CT:1CT              | -1.1                       | -18                     | -18+20*log(f/30) | -12        | -35                    | -33+20*log(f/50) | -30              | 3000             |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



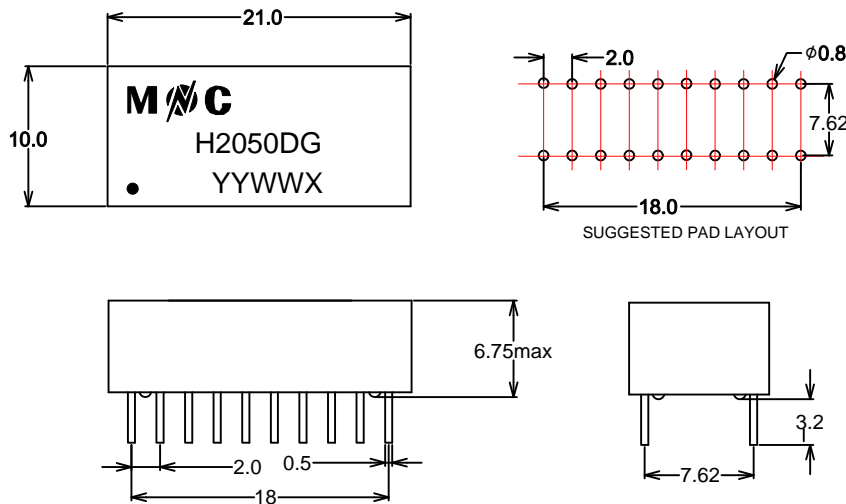
- Meets IEEE 802.3u Standards.
- RoHS Compliant.
- 10/100 Base-T, Surface mount Type, Open Header .
- Operating temperature range: 0°C to +70°C
- Pass 6KV surge(No breakdown during the test)



### Electrical Specifications @25°C

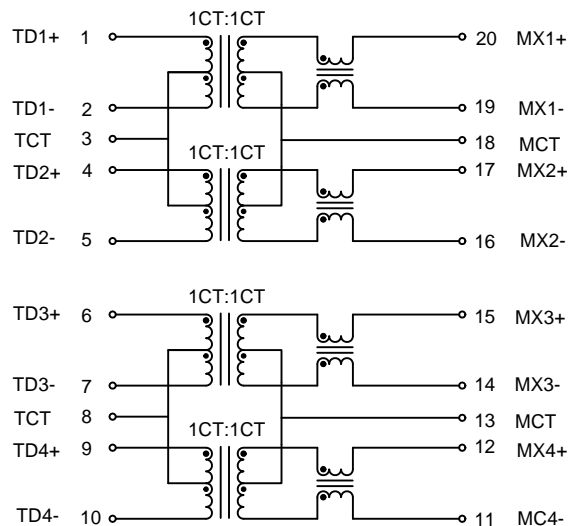
| Part Number | OCL(uH Min)<br>@100KHz,0.2V | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |           | Return Loss<br>(dB Min) |            | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|-------------|-----------------------------|----------------------|----------------------------|-----------|-------------------------|------------|------------------------|------------------|------------------|------------------|
|             | With 8mA DC Bias            |                      | 0.5-100MHz                 | 0.5-30MHz | 30.1-60MHz              | 60.1-80MHz | 0.5-40MHz              | 40.1-100MHz      |                  |                  |
| H2050DG     | 350                         | 1CT:1CT              | -1.1                       | -18       | -18+20*log(f/30)        | -12        | -35                    | -33+20*log(f/50) | -30              | 4000             |






## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

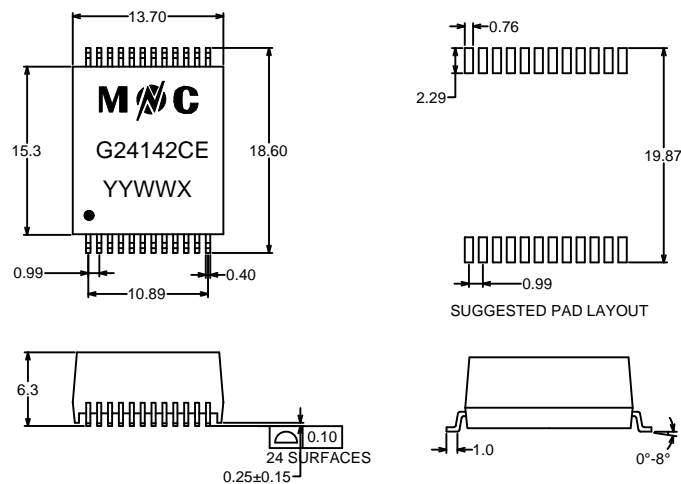


-  Meets IEEE 802.3ab Standards.
-  RoHS Compliant.
-  10/100/1000 Base-T, Surface Mount Type, Open Header .
-  Operating temperature range: -40°C to +85°C.
-  Pass 6KV surge(No breakdown during the test)



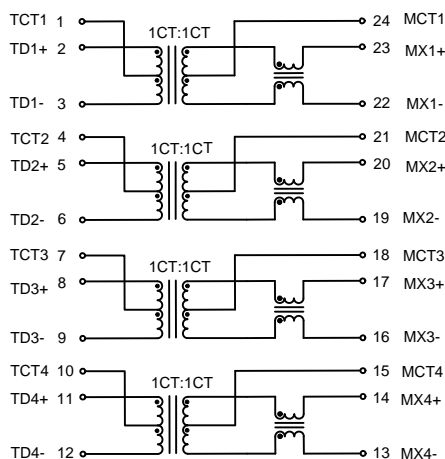
| Electrical Specifications @25°C |                             |                      |                            |        |                         |                  |                        |             |                  |                  |
|---------------------------------|-----------------------------|----------------------|----------------------------|--------|-------------------------|------------------|------------------------|-------------|------------------|------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz,0.2V | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) |        | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |             | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 | With 8mA DC Bias            |                      | 0.5-100MHz                 | 125MHz | 0.5-40MHz               | 40.1-100MHz      | 0.5-40MHz              | 40.1-100MHz |                  |                  |
| G24142CE                        | 350                         | 1CT:1CT              | -1.1                       | -1.6   | -18                     | -12+20*log(f/80) | -35                    | -30         | -30              | 3000             |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



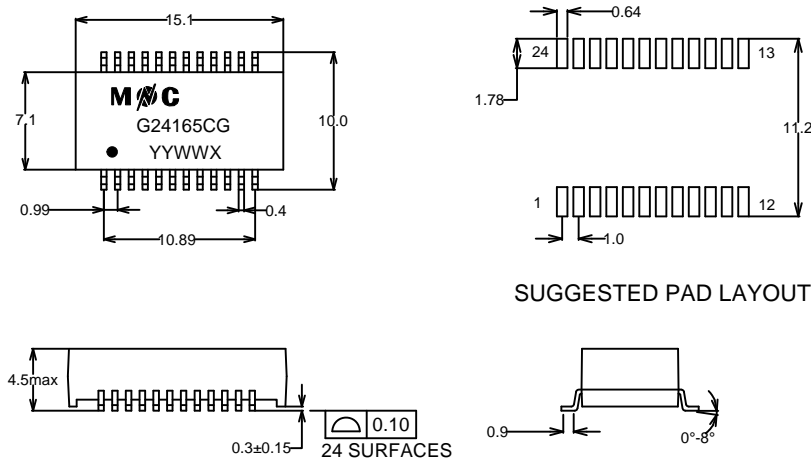


- Meets IEEE 802.3ab Standards.
- RoHS Compliant.
- 100/1000 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.
- Pass 6KV surge(No breakdown during the test)



| Electrical Specifications @25°C |                             |                      |                            |                         |                  |                        |             |                                |                  |
|---------------------------------|-----------------------------|----------------------|----------------------------|-------------------------|------------------|------------------------|-------------|--------------------------------|------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz,0.2V | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |             | CMRR<br>(dB Min)<br>0.5-100MHz | HI-POT<br>(Vrms) |
|                                 | With 8mA DC Bias            |                      | 0.5-100MHz                 | 0.5-40MHz               | 40.1-100MHz      | 0.5-40MHz              | 40.1-100MHz |                                |                  |
| G24165CG                        | 350                         | 1CT:1CT              | -1.1                       | -18                     | -12+20*log(f/80) | -35                    | -30         | -30                            | 3000             |

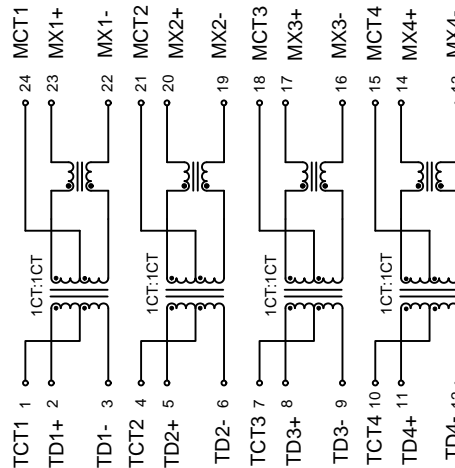
## MECHANICAL



SUGGESTED PAD LAYOUT

Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

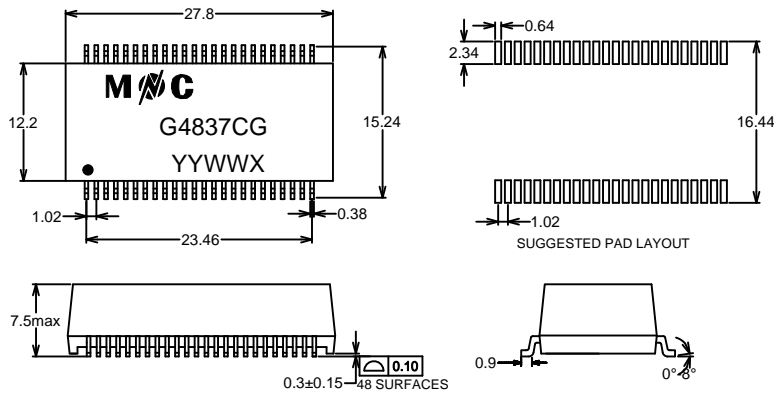


- Meets IEEE 802.3ab Standards.
- RoHS Compliant.
- 10/100/1000 Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C
- Pass 6KV surge(No breakdown during the test)



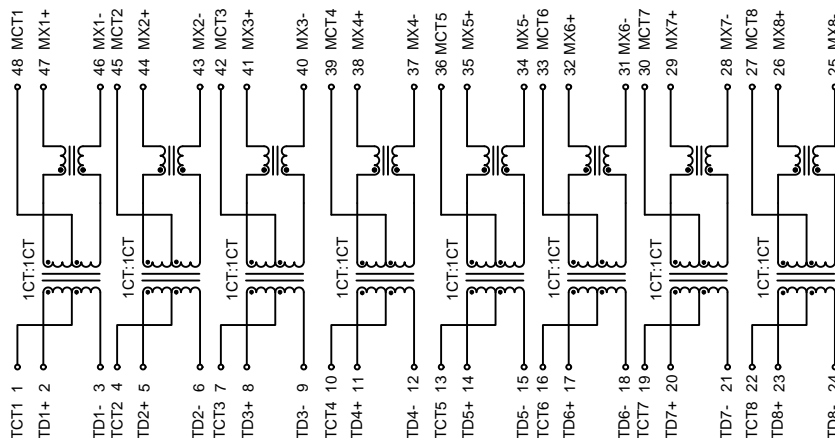
| Electrical Specifications @25°C |                             |                      |                            |                         |                  |                        |                  |                  |                  |
|---------------------------------|-----------------------------|----------------------|----------------------------|-------------------------|------------------|------------------------|------------------|------------------|------------------|
| Part Number                     | OCL(uH Min)<br>@100KHz,0.2V | Turns Ratio<br>(±5%) | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |                  | Cross talk<br>(dB Min) |                  | CMRR<br>(dB Min) | HI-POT<br>(Vrms) |
|                                 | With 8mA DC Bias            |                      | 0.5-100MHz                 | 0.5-40MHz               | 40.1-100MHz      | 0.5-40MHz              | 40.1-100MHz      | 0.5-100MHz       |                  |
| G4837CG                         | 350                         | 1CT:1CT              | -1.1                       | -18                     | -12+20*log(f/80) | -35                    | -33+20*log(f/50) | -30              | 3000VAC          |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

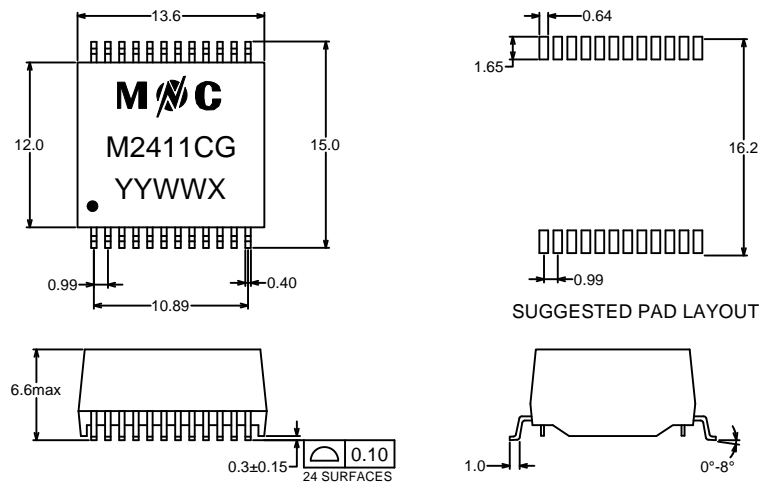


- Meets IEEE 802.3an Standards.
- RoHS Compliant.
- 10G Base-T, Surface Mount Type, Open Header .
- Operating temperature range: 0°C to +70°C.
- Pass 6KV surge(No breakdown during the test)



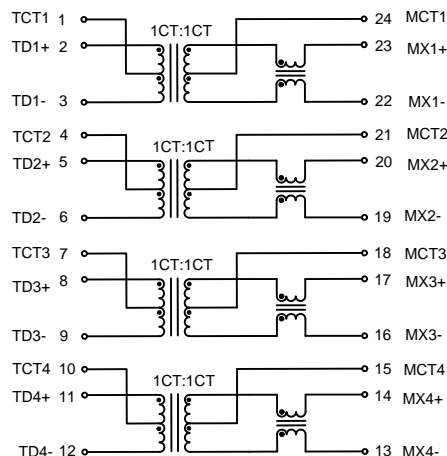
| Electrical Specifications @25°C |                          |                   |                      |          |                   |                  |   |            |                  |            |               |
|---------------------------------|--------------------------|-------------------|----------------------|----------|-------------------|------------------|---|------------|------------------|------------|---------------|
| Part Number                     | OCL(uH Min) @100KHz,0.1V | Turns Ratio (±5%) | Insertion Loss (MAX) |          | Return Loss (MIN) |                  | Common to Differential Mode Rejection (MIN) |            | Cross talk (MIN) |            | Hi-Pot (Vrms) |
|                                 |                          |                   | 100KHz               | 1-400MHz | 1-40MHz           | 40-500MHz        | 1-250MHz                                    | 250-500MHz | 1-100MHz         | 100-500MHz |               |
| M2411CG                         | 120uH                    | 1CT:1CT           | -3.0                 | -1.5     | -18               | -17+10*log(f/40) | -30   | -22        | -40              | -30        | 3000          |

## MECHANICAL



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS



- Octal SMT Package contains both transmit and receive transformers
- Models matched to leading transceivers
- RoHS Compliance
- Operating temperature range: 0°C to +70°C.

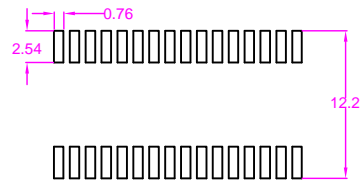
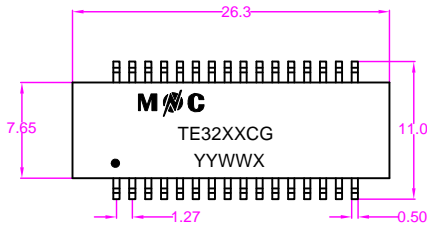


## Electrical Specifications @25°C

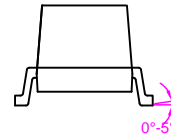
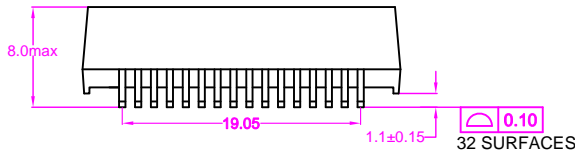
| Part Number | OCL(mH Min)<br>@10KHz,0.1V | Turns Ratio<br>(±2%) | LL<br>(uH MAX) | C <sub>ww</sub><br>(pF MAX) | DCR<br>(Ω MAX) | Primary Pins       |                     | Hi-Pot<br>(Vrms) |
|-------------|----------------------------|----------------------|----------------|-----------------------------|----------------|--------------------|---------------------|------------------|
|             |                            | Pri:Sec              | 100KHz,0.2V    | 100KHz,0.2V                 | Pri            | Transmit           | Receive             |                  |
| TE3202CG    | 1.2                        | 1:2                  | 0.6&0.6        | 30&30                       | 1.2            | 1-2,5-6,9-10,13-14 | 3-4,7-8,11-12,15-16 | 1500             |

## MECHANICAL

TE3202CG



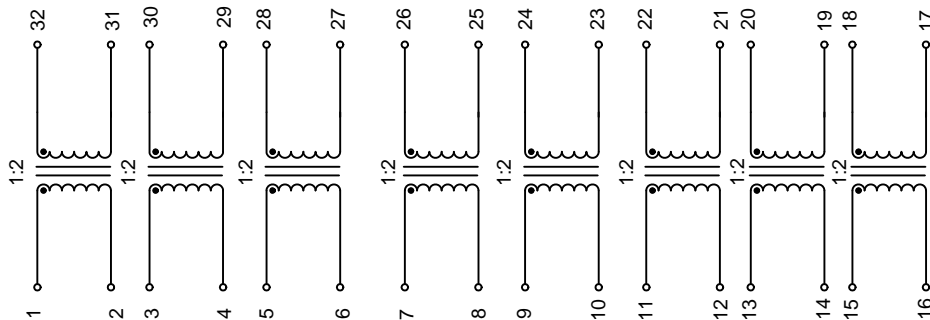
SUGGESTED PAD LAYOUT



Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

TE3202CG



- Octal SMT Package contains both transmit and receive transformers
- Models matched to leading transceivers
- RoHS Compliance
- Operating temperature range: 0°C to +70°C.

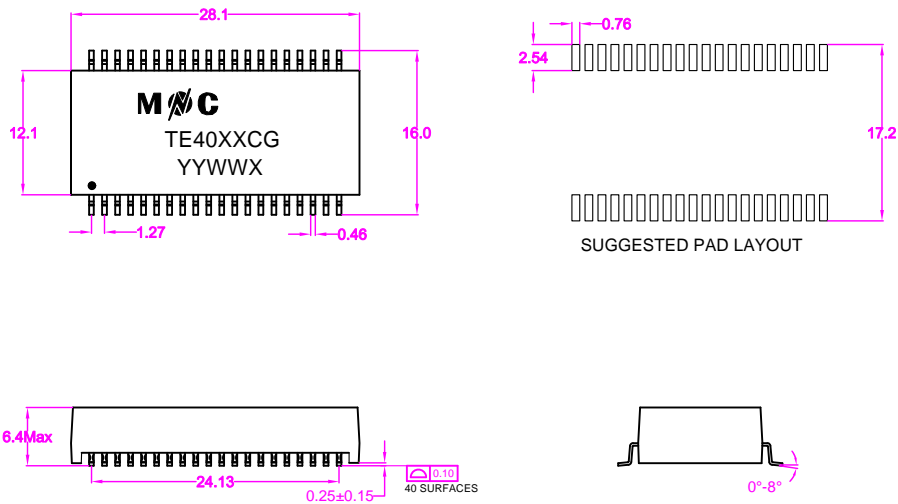


## Electrical Specifications @25°C

| Part Number | OCL(mH Min)<br>@10KHz,0.1V | Turns Ratio<br>(±2%) | LL<br>(uH MAX) | C <sub>ww</sub><br>(pF MAX) | DCR<br>(Ω MAX) | Primary Pins         |                         | Hi-Pot<br>(Vrms) |
|-------------|----------------------------|----------------------|----------------|-----------------------------|----------------|----------------------|-------------------------|------------------|
|             |                            | Pri:Sec              | 100KHz,0.2V    | 100KHz,0.2V                 | Pri            | Transmit             | Receive                 |                  |
| TE4001CG    | 1.2&1.2                    | 1:2CT                | 0.8&0.8        | 35&35                       | 0.8            | 4-5,9-10,14-15,19-20 | 24-25,29-30,34-35,39-40 | 1500             |
| TE4008CG    | 1.2&1.2                    | 1CT:2&1:2CT          | 0.6&0.6        | 35&35                       | 1.2            | 4-5,9-10,14-15,19-20 | 1-3,6-8,11-13,16-18     | 1500             |
| TE4016CG    | 1.2&1.2                    | 1:2.4&1:1            | 0.5&0.5        | 35&35                       | 1.5            | 1-2,8-9,11-12,18-19  | 3-4,6-7,13-14,16-17     | 1500             |
| TE4027CG    | 1.2                        | 1:1.266              | 0.7 & 0.7      | 35&35                       | 1.2            | 1-2,6-7,11-12,16-17  | 3-4,8-9,13-14,18-19     | 1500             |

## MECHANICAL

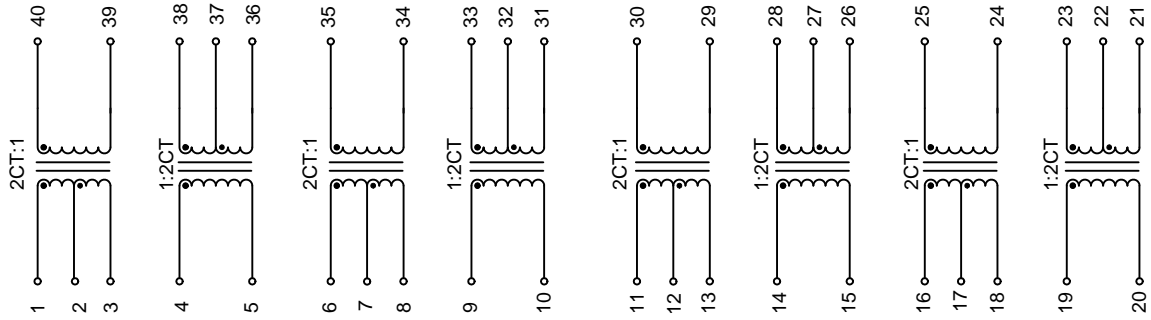
TE4001CG,TE4008CG,TE4016CG,TE4027CG



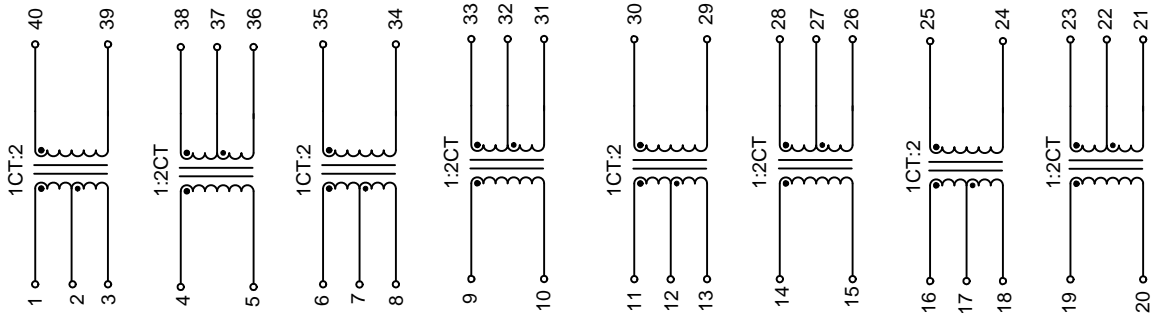
Unless otherwise specified all tolerances are:±0.25 in mm

## SCHEMATICS

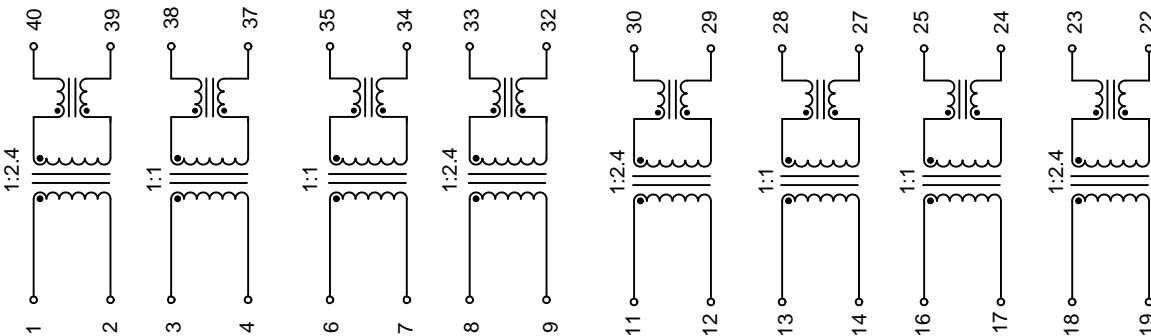
### TE4001CG



### TE4008CG



### TE4016CG



### TE4027CG

