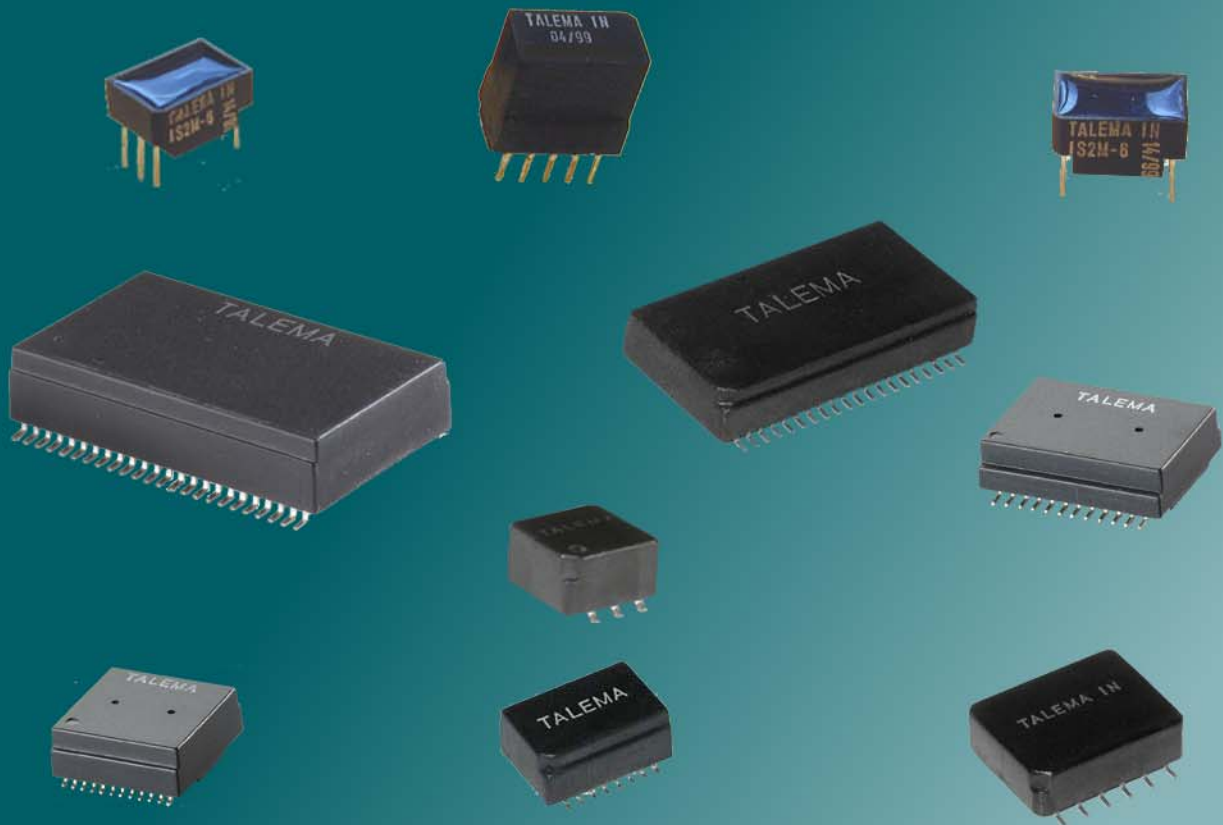


E1/T1/CEPT/ISDN-PRI - T3/E3/D3/STS-1

Interface Transformers for

Telecommunication Products



Magnetic Components for E1/T1/CEPT/ISDN-PRI - T3/E3/D3/STS-1

TALEMA PROFILE

Founded in 1975, The TALEMA International Group has established itself as a world leader in the Design & Manufacture of toroidal transformers and related magnetic components. Our strong technical engineering expertise has contributed to the growth of our current workforce to over 700 employees in manufacturing locations in the Czech Republic and India.

Over the years The Talema Group has succeeded in designing, producing and delivering in excess of 50 million transformers to its customers. The recent incorporation of xDSL technology into our extensive range of Telecom and LAN magnetics offerings, such as ISDN, Ethernet transformers for 10Base-T/100Base-T/1000Base-T, has broadened our market offering to an even higher level.

QUALITY

The TALEMA Group has a total commitment to quality and employs Lean Six Sigma training for engineering, production and administrative staff to help achieve a goal of zero defects. All facilities maintain very stringent Quality Control and Quality Assurance procedures and are certified to and manufacture in accordance with ISO 9001:2008, ISO/TS 16949:2009 and meet a broad range of International Standards including UL, VDE, IEC, and EN.

ENVIRONMENT

All TALEMA International Group manufacturing facilities are RoHS & REACH Compliant and all Transformers, Chokes, Inductors and HF Components are produced in an Environment Management System (EMS) facility certified to ISO 14001:2004



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E1 / T1 / PRI / CEPT

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Visit our websites for detailed electrical and mechanical specifications for Talema's extensive line of Magnetic Components for Power Conversion, Toroidal Transformers & LAN Applications:

www.talema.com
www.nuvotem.com
www.ntmagnetics.cz

IC - E1 / T1 / PRI / CEPT Transformer Selection Guide



Talema manufactures a wide range of transformers for all 1.544 and 2.048Mbps applications. A full listing of LIU Transceiver IC's with recommended Talema transformers is listed on the following cross reference chart.

Performance has been proven in the many design-ins of our products in these applications. Quality and consistency is guaranteed through 100% testing of the specified parameters for Primary Inductance, Leakage Inductance, Turns Ratio, DC resistance and Interwinding Capacitance. This ensures that the Return Loss and Pulse Waveshape requirements of ITU-T G.703 and ANSI T1.102 can be met. Additionally all parts are 100% tested for 1500V minimum isolation.

Temperature Performance

Products are offered with extended temperature (-40° to 85°C) as standard. Required minimum inductance levels are maintained at the lower temperature limits.

IC - Transformer Selection Guide for T1/E1/CEPT/ISDN-PRI Interface Modules

| IC Manufacturer | IC Part Number | Application | Talema Transformer Part Number | | |
|-------------------------------|---|--------------|--------------------------------|---------------|-----------------|
| | | | Single Through Hole | | 16 Pin Dual SMD |
| | | | Transmit | Receive | Tx / Rs |
| Cologne Chip | HFC-E1 | S2M | -- | -- | MJM-032 |
| Cirrus Logic (Crystal) | 61318 | 120 E1 | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | 61318 | 75 E1 | IS2M-17 / -27 | IS2M-15 / -20 | -- |
| | 61577 | T1 & E1 | IS2M-7 / -19 | IS2M-19 | MJM-017 |
| | 61304A, 61305A, 61535A, 61574A, 61575 | T1 | IS2M-8 / 21 | IS2M-21 / -19 | MJM-019 |
| | 61304A, 61305A, 61535A, 61574A, 61575 | 75 E1 | IS2M-12 | IS2M-7 / -19 | MJM-025 |
| | 61304A, 61305A, 61535A, 61574A, 61575 | 120 E1 | IS2M-12 | IS2M-7 / -19 | MJM-025 |
| | 61582, 61583 | | IS2M-8 / -21 | IS2M-8 / -21 | MJM-013 |
| | 61310, 61581 | | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | 61310, 61581 | Host | IS2M-7 / -19 | IS2M-7 / -19 | MJM-026 |
| | 61880, 61881 | | IS2M-8 / -21 | IS2M-7 / -19 | MJM-019 |
| | 61584, 61584A | IQ3 | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| 61582, 61583, 61584, 61584A | IQ5 | IS2M-8 / -21 | IS2M-8 / -21 | MJM-013 | |
| Maxim (Dallas) | DS2196, DS2155, DS2149, DS2148 | | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | DS2151, DS2152, DS2153, DS2154 | | IS2M-8 / -21 | IS2M-15 / -20 | MJM-019 |
| | DS2151, DS2152, DS2153, DS2154 | | IS2M-10 / -25 | IS2M-15 / -20 | MJM-028 |
| | DS2148/Q48/Q348/349/Q59 | 3V | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | DS2148, Q48 | 5V | IS2M-10 / -25 | IS2M-15 / -20 | MJM-028 |
| | DS21352/Q352, DS21354/Q354 | T1/E1 | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | DS21552/Q552, DS21554/Q554 | T1/E1 | IS2M-8 / -21 | IS2M-15 / 20 | MJM-019 |
| | DS21552/Q552, DS21554/Q554 | T1/E1 | IS2M-10 / -25 | IS2M-15 / -20 | MJM-028 |
| | DS26502, DS2503, DS21455, DS21458, DS26528 | | IS2M-7 | IS2M-15 | MJM-018 |
| Exar | XRT5683A, XRT59L91, XRT5894, XRT5897, XRT5997 | | IS2M-6 / -19 | IS2M-6 / -19 | MJM-017 |
| | XRT5793, XRT5794 | | IS2M-12 | IS2M-24 / -20 | MJM-025 |
| | XRT81L27, 82L24, 82D20 | | IS2M-25 | IS2M-6 / -19 | MJM-028 |
| | XRT83L30, XRT83L34, XRT83L38 | | IS2M-6 / -19 | IS2M-6 / -19 | MJM-018 |
| | XRT86L30, XRT86L32, XRT86L34, XRT86L38 | | IS2M-6 | IS2M-24 | MJM-018 |
| | T5684, XRT7288, 82D20 | | IS2M-25 | IS2M-7 / -19 | MJM-028 |
| IDT | 82V2044, 82V2048, 82V2048L, 82V2054, 82V2058 | | IS2M-6 | IS2M-6 | MJM-043 |
| | 82V2041E, 82V2042E, 82V2044E, 82V2048E | | IS2M-6 | IS2M-24 | MJM-018 |
| | 82V2081, 82V2082, 82V2084, 82V2088 | | IS2M-6 | IS2M-24 | MJM-018 |
| | 82P2281, 82P2282, 82P2284, 82P2288 | | IS2M-6 | IS2M-24 | MJM-018 |
| Infineon (Siemens) | PEB2254, PEB2255 | E1/T1/J1 | -- | -- | MJM-010 |
| | PEB2254, PEB2255 | E1/T1/J1 | -- | -- | MJM-021 |
| | PEB22504, PEB22554, PEB2256 | 3.3V | -- | -- | MJM-022 |

IC - Transformer Selection Guide for T1/E1/CEPT/ISDN-PRI Interface Modules

| IC Manufacturer | IC Part Number | Application | Talema Transformer Part Number | | |
|-------------------------|--|---------------|--------------------------------|---------------|-----------------|
| | | | Single Through Hole | | 16 Pin Dual SMD |
| | | | Transmit | Receive | Tx / Rs |
| Intel (Level One) | LXT300, LX301 | | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| | LXT304, LXT305, LXT307 | T1/E1 | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| | LXT304, LXT305, LXT307 | T1 | IS2M-8 / -21 | IS2M-7 / -19 | MJM-019 |
| | LXT304, LXT305, LXT307 | 75, 120 E1 | IS2M-12 | IS2M-7 / -19 | MJM-025 |
| | LXT304, LXT305, LXT307 | DSX-1, D4 | IS2M-11 | IS2M-7 | MJM-016 |
| | LXT310, LXT317, LXT318 | | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | LXT312, LXT313, LXT315 | | IS2M-26 | IS2M-15 / -20 | -- |
| | LXT331 | T1/E1 | IS2M-7 / -19 | IS2M-7 / -19 | MJM-018 |
| | LXT331, LXT332 | | IS2M-11 | IS2M-7 | MJM-016 |
| | LXT331, LXT332 | | IS2M-8 / -21 | IS2M-7 / -19 | MJM-019 |
| | LXT331, LXT332 | | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| | LXT334, LXT335 | T1/E1 | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| | LXT334, LXT335 | 120/75 E1 | IS2M-10 / -25 | IS2M-7 / -19 | MJM-028 |
| | LXT334, LXT335 | 75 E1 | IS2M-12 | IS2M-7 / -19 | MJM-025 |
| | LXT334, LXT335 | | IS2M-16 | IS2M-15 | MJM-026 |
| | LXT336 | | IS2M-7 | IS2M-20 | MJM-024 |
| | LXT350, LXT351, LXT359 | T1/E1 | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | LXT350, LXT351 | | IS2M-11 | IS2M-7 | MJM-019 |
| | LXT350, LXT351 | 120 E1 | IS2M-11 | IS2M-7 | MJM-016 |
| | LXT360, LXT361, LXT362, LXT363 | T1/E1 | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | LXT360, LXT361, LXT362, LXT363 | | IS2M-8 / -21 | IS2M-7 / 19 | MJM-019 |
| | LXT360, LXT361 | | IS2M-11 | IS2M-7 | MJM-016 |
| | LXT380, LXT381, LXT384, LXT386, LXT388 | T1/ E1 | IS2M-7 / -19 | IS2M-15 / -20 | MJM-018 |
| | LXT380, LXT381, LXT384, LXT386, LXT388 | | IS2M-11 | IS2M-7 | MJM-016 |
| LXT3104, LXT3108 | | IS2M-15 / -20 | IS2M-15 / -20 | MJM-017 | |
| LXT3104, LXT3108 | | -- | -- | MJM-048 | |
| Agere (Lucent) | T7288, T7290A | CEPT/E1 | IS2M-10 / -25 | IS2M-6 / -19 | MJM-028 |
| | T7289A | DS1 | IS2M-23 / -21 | IS2M-7 / -19 | MJM-019 |
| | T7630, T7688, T7690, T7698 | CEPT | IS2M-10 / -25 | IS2M-10 / -25 | -- |
| | T7630, T7688, T7690, T7698 | DS1 | IS2M-23 / -21 | IS2M-23 / -21 | MJM-013 |
| | T7693, T7697 | CEPT | -- | -- | MJM-038 |
| | TLIU04C1 | DS1 | IS2M-23 / -21 | IS2M-23 / -21 | MJM-013 |
| | TLIU04C1 | CEPT | IS2M-10 / -25 | IS2M-10 / -25 | -- |
| PMC-Sierra | PM4341, PM6341, PM4314 | | IS2M-25 | IS2M-7 / -19 | MJM-028 |
| | PM4318, PM4319, PM4323, PM4325 | | IS2M-7 / -19 | IS2M-7 / -19 | MJM-017 |
| | PM4351, PM4354 | COMET | -- | -- | MJM-038 |
| Mindspeed (Conexant) | BT8510 | T1/E1 | IS2M-12 | IS2M-7 | MJM-031 |
| | BT8510 | T1/E1 | IS2M-12 | IS2M-7 | MJM-025 |
| | BT8370, BT8375, BT8376 | Low Power | IS2M-8 | IS2M-15 | MJM-019 |
| | BT8370, BT8375, BT8376 | Better RI | IS2M-25 | IS2M-15 | MJM-028 |
| Zarlink (Mitel) | MT9071, MT9076 | | -- | -- | MJM-038 |
| | MT9075, MT9076 | | -- | -- | MJM-022 |
| | MT9074, MT9075 | | IS2M-7 | IS2M-24 | MJM-018 |

Notes:

- Dallas IC's use either a 1:1.15 or a 1:1.36 ratio transformer depending on the application. Consult the Dallas application notes or contact Talema.
- Consult Siemens Application Note 12.90 ('Just a Single Line Transformer Type for all IPAT (PEB2235) Applications') for calculation of resistor values.
- The Dual Transformer types MJM-010 and MJM-021 are electrically identical but have different schematics. Either part may be used with the PEB2254 and PEB2255.
- See Level One Application Note 118 ('Transformer Specifications for Level One Transceiver Applications') for further details on the choice of transformer ratios.

MJM Series • E1 / T1 / PRI / CEPT Dual Transformer Modules

Features

- SMD design ideal for pick and place compatibility while providing unrivaled coplanarity
- Controlled parameters ensure full compliance with ITU-T G.703 when matched with recommended IC
- Ideal for all 1.544 and 2.048 Mbs interface applications
- Manufactured in an ISO 9001:2008, ISO/TS 16949:2009 and ISO 14001:2004 certified Talema facility
- Extended operating temperature: -40° to +85°C
- Fully RoHS & REACH Compliant and meets lead free reflow level J-STD-020C



- Test Frequency: No load Inductance @ 10KHz/20mV
- Minimum isolation voltage between Pri to Sec 1500Vrms

Electrical Specifications @ 25°C

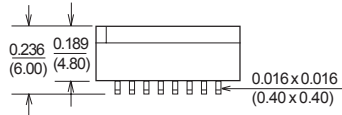
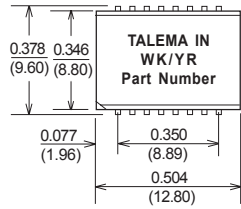
MJM Series - Dual Transformers

| Part Number | Transformer - I | | | | | | Transformer - II | | | | | | Schematic |
|-------------|-------------------|-------------------------|------------------------|------|-----------|--------------|-------------------|-------------------------|------------------------|------|-----------|-------------|-----------|
| | Turns Ratio +/-5% | L _p (mH Min) | R _{CU} (Ohms) | | Pri. Pins | Sec. Pins | Turns Ratio +/-5% | L _p (mH Min) | R _{CU} (Ohms) | | Pri. Pins | Sec. Pins | |
| | | | Pri. | Sec. | | | | | Pri. | Sec. | | | |
| MJM-010 | 1ct:1.41ct | 1.2 | 0.41 | 0.58 | 16-15-14 | 1-2-3 | 1ct:1.41ct | 1.2 | 0.41 | 0.58 | 11-10-9 | 6-7-8 | A |
| MJM-013 | 1ct:1.15ct | 1.2 | 0.39 | 0.44 | 1-2-3 | 16-15-14 | 1ct:1.15ct | 1.2 | 0.39 | 0.44 | 6-7-8 | 11-10-9 | A |
| MJM-016 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | 1ct:2.3ct | 1.2 | 0.39 | 0.88 | 16-15-14 | 1-2-3 | A |
| MJM-017 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 16-15-14 | 1-2-3 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | A |
| MJM-018 | 1ct:1ct | 1.2 | 0.39 | 0.38 | 16-15-14 | 1-2-3 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | A |
| MJM-019 | 1:1.15ct | 1.2 | 0.39 | 0.44 | 16-14 | 1-2-3 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | B |
| MJM-021 | 1ct:1.41ct | 1.2 | 0.41 | 0.58 | 1-2-3 | 16-15-14 | 1ct:1.41ct | 1.2 | 0.41 | 0.58 | 11-10-9 | 6-7-8 | A |
| MJM-022 | 1ct:1ct | 1.0 | 0.39 | 0.39 | 11-10-9 | 6-7-8 | 1ct:2.4ct | 1.0 | 0.41 | 0.90 | 1-2-3 | 16-15-14 | A |
| MJM-023 | 1:1ct | 1.2 | 0.39 | 0.39 | 16-14 | 1-2-3 | 1:1ct | 1.2 | 0.39 | 0.39 | 6-8 | 11-10-9 | C |
| MJM-024 | 1ct:1ct | 1.0 | 0.39 | 0.39 | 6-7-8 | 11-10-9 | 1ct:1.67ct | 1.0 | 0.39 | 0.66 | 16-15-14 | 1-2-3 | A |
| MJM-025 | 1:1/1.26 | 1.2 | 0.39 | 0.48 | 16-14 | 1-2-3 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | B |
| MJM-026 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 16-15-14 | 1-2-3 | 1ct:1.5ct | 1.2 | 0.39 | 0.58 | 6-7-8 | 11-10-9 | A |
| MJM-027 | 1:2ct | 1.6 | 0.41 | 0.83 | 16-14 | 1-2-3 | 2:1 | 1.6 | 0.41 | 0.21 | 6-8 | 11-9 | D |
| MJM-028 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 16-15-14 | 1-2-3 | 1:1.36ct | 1.2 | 0.39 | 0.52 | 6-8 | 11-10-9 | E |
| MJM-029 | 1:2.42ct | 1.2 | 0.39 | 0.94 | 16-14 | 1-2-3 | 1:2.42ct | 1.2 | 0.39 | 0.94 | 6-8 | 11-10-9 | C |
| MJM-030 | 2:1:1 | 1.2 | 0.46 | 0.26 | 16-14 | 1-2, 3-4 | 2:1:1 | 1.2 | 0.46 | 0.26 | 11-9 | 5-6, 7-8 | F |
| MJM-031 | 2ct:1/1.26 | 1.5 | 0.41 | 0.52 | 1-2-3 | 16-15-14 | 2ct:1/1.26 | 1.5 | 0.41 | 0.52 | 11-10-9 | 6-7-8 | A |
| MJM-032 | 1:2.42 | 1.2 | 0.39 | 0.94 | 16-14 | 1-2-3 | 1:1ct | 1.2 | 0.39 | 0.39 | 6-8 | 11-10-9 | C |
| MJM-033* | 1:1.9/2.4 | 1.0 | 0.41 | 0.94 | 16-15-14 | 1-2-3 | 0.79:1.9/1 | 1.0 | 0.40 | 0.75 | 6-7-8 | 11-10-9 | A |
| MJM-034 | 1ct:1.5ct | 1.5 | 0.41 | 0.62 | 1-2-3 | 16-15-14 | 1ct:1.5ct | 1.5 | 0.41 | 0.62 | 6-7-8 | 11-10-9 | A |
| MJM-035 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 6-7-8 | 11-10-9 | 1ct:1.36ct | 1.2 | 0.39 | 0.52 | 1-2-3 | 16-15-14 | A |
| MJM-036 | 2cs:1.57/2 | 1.5 | 0.41 | 0.82 | 1-2 | - | 2cs:1.57/2 | 1.5 | 0.41 | 0.82 | 5-6 | - | G |
| MJM-037 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 16-15-14 | 1-2-3 | 1ct:1.36ct | 1.2 | 0.39 | 0.53 | 6-7-8 | 11-10-9 | A |
| MJM-038 | 1ct:2.42ct | 1.2 | 0.39 | 0.94 | 1-2-3 | 16-15-14 | 1ct:2.42ct | 1.2 | 0.39 | 0.94 | 6-7-8 | 11-10-9 | A |
| MJM-039 | 1:2/2.4 | 1.0 | 0.39 | 0.94 | 1-3 | 16-15-14 | 1:0.79/1 | 1.0 | 0.39 | 0.39 | 6-8 | 11-10-9 | H |
| MJM-040 | 1ct:2.4ct | 1.2 | 0.39 | 0.94 | 1-2-3 | 16-15-14 | 1ct:2.4ct | 1.2 | 0.39 | 0.94 | 6-7-8 | 11-10-9 | A |
| MJM-041 | 1:2ct | 1.2 | 0.39 | 0.77 | 1-3 | 16-15-14 | 1:2cs | 1.2 | 0.39 | 0.77 | 11-9 | 5-6, 7-8 | J |
| MJM-042 | 1:1.36ct | 1.2 | 0.39 | 0.53 | 16-14 | 1-2-3 | 1:2ct | 1.2 | 0.39 | 0.77 | 6-8 | 11-10-9 | C |
| MJM-043 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 1-2-3 | 16-15-14 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 6-7-8 | 11-10-9 | A |
| MJM-044 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 1-2-3 | 16-15-14 | 1:1 | 1.2 | 0.39 | 0.39 | 6-8 | 11-9 | K |
| MJM-045 | 1ct:2ct | 1.2 | 0.39 | 0.77 | 1-2-3 | 16-15-14 | 1ct:2.42ct | 1.2 | 0.39 | 0.95 | 6-7-8 | 11-10-9 | A |
| MJM-046 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 1-2-3 | 16-15-14 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 6-7-8 | 11-10-9 | A |
| MJM-047 | 1ct:1.26ct | 1.2 | 0.39 | 0.50 | 1-2-3 | 16-15-14 | 1ct:1.26ct | 1.2 | 0.39 | 0.50 | 6-7-8 | 11-10-9 | A |
| MJM-048 | 1ct:1:0.8 | 1.2 | 0.39 | 0.39 | 16-15-14 | 1-2, 3-4 | 1ct:1:0.8 | 1.2 | 0.39 | 0.39 | 11-10-9 | 5-6, 7-8 | G |
| MJM-049 | 1ct:1.58:2 | 1.2 | 0.39 | 0.80 | 2-3-4 | 16-15, 14-13 | 1:1.65:2 | 1.2 | 0.39 | 0.80 | 6-7 | 12-11, 10-9 | L |
| MJM-050 | 1ct:1:1 | 1.2 | 0.39 | 0.39 | 16-15-14 | 1-2, 3-4 | 1ct:1:1 | 1.2 | 0.39 | 0.39 | 11-10-9 | 5-6, 7-8 | G |
| MJM-051 | 1ct:2.4ct | 1.2 | 0.39 | 0.94 | 1-2-3 | 16-15-14 | 1ct:1ct | 1.2 | 0.39 | 0.39 | 6-7-8 | 11-10-9 | A |

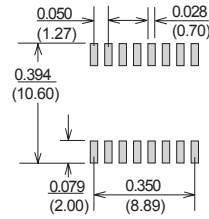
* MJM-033 Turns Ratio: Pins 16-14:1-2 = 1:1.9, Pins 16-14:1-3=1:2.4; Pins 6-8:9-11=0.79:1.9, Pins 6-8:11-10=0.79:1

MJM Series • E1/T1/ PRI/CEPT Dual Transformer Modules

MJM Dimensions



Suggested Pad Layout



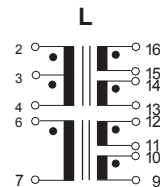
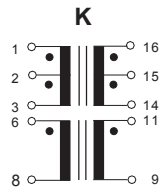
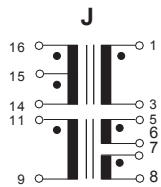
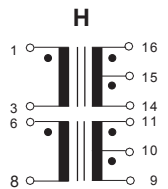
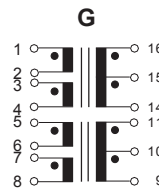
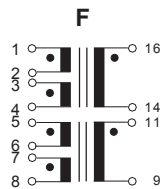
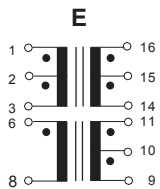
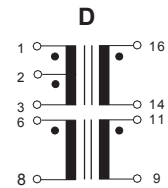
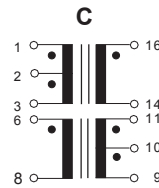
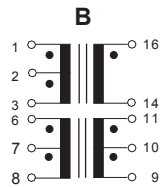
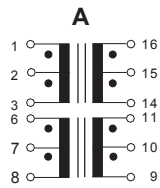
Dimensions: Inches (Millimeters)

Tolerance: ± 0.010 (0.25) unless specified otherwise

Surface Coplanarity will be 0.004 (0.10) maximum

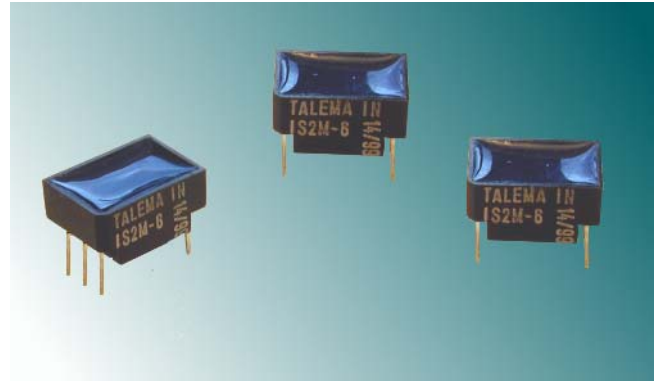
Packing Method: Tape and Reel; Qty/Reel: 600 Pcs

Schematics



IS2M Series • E1/T1/ PRI/CEPT Single Transformers
Features

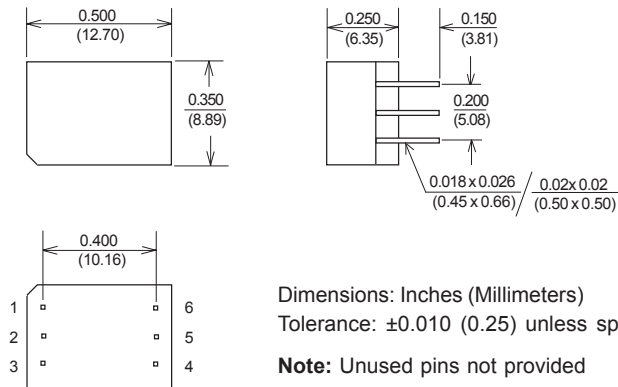
- Industry standard through-hole footprints
 - Wide range compatible with all common transceiver IC's
 - Controlled parameters ensure full compliance with ITU-T G.703 when matched with recommended IC
 - Ideal for all 1.544 and 2.048 Mbs interface applications
 - Manufactured in an ISO 9001:2008, ISO/TS 16949:2009 and ISO 14001:2004 certified Talema facility
 - Extended operating temperature: -40° to +85°C
 - Fully RoHS & REACH Compliant
-
- Test Voltage: 1.5KVrms - Line side winding in series to IC side winding in series


Electrical Specifications @ 25°C

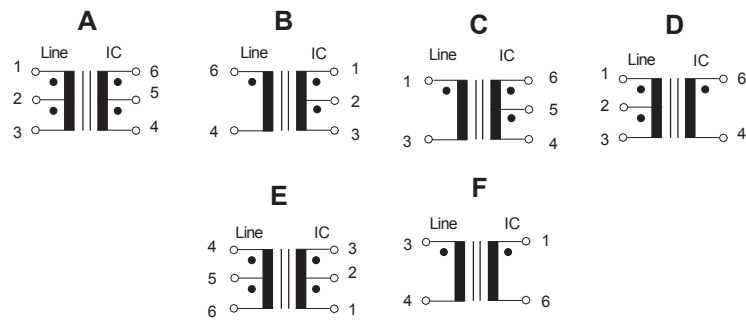
 Turns Ratio: **Bold** = IC side windings

| IS2M Series Transformers | | | | | | | | |
|--------------------------|--------------------|------------------|-----------------------------|----------------------|---------------|--------------------------|-----------------|-----------|
| Part Number | Turns Ratio ±5% | OCL (mH Min.) | L _L (μH Max.) | DCR Pri (Ohms) | DCR (Ohms) | V _p (Vrms) | Primary Pins | Schematic |
| IS2M-6 | 1ct: 2ct | 1.2 | 0.5 | 0.7 | 1.2 | 1500 | 1-3 | A |
| IS2M-7 | 1:2ct | 1.2 | 0.5 | 0.7 | 1.2 | 1500 | 6-4 | B |
| IS2M-8 | 1:1.15ct | 1.5 | 0.6 | 0.7 | 0.9 | 1500 | 6-4 | B |
| IS2M-10 | 1:1.36ct | 1.2 | 0.8 | 0.5 | 0.8 | 1500 | 1-3 | C |
| IS2M-11 | 1:2.3ct | 1.2 | 0.8 | 0.7 | 1.4 | 1500 | 1-3 | C |
| IS2M-12 | 1:1/1.26 | 1.5 | 0.5 | 0.7 | 0.9 | 1500 | 6-4 | B |
| IS2M-15 | 1ct: 1 | 1.2 | 0.5 | 0.7 | 0.7 | 1500 | 1-3 | D |
| IS2M-16 | 1:1.5ct | 1.2 | 0.6 | 0.7 | 1.0 | 1500 | 6-4 | B |
| IS2M-17 | 1:1.53 | 1.2 | 0.8 | 0.5 | 1.0 | 1500 | 3-4 | F |
| IS2M-18 | 1:1.185 | 1.2 | 0.5 | 0.7 | 0.8 | 1500 | 3-4 | F |
| IS2M-19 | 1ct: 2ct | 1.2 | 1.0 | 1.0 | 2.0 | 1500 | 6-4 | E |
| IS2M-20 | 1ct: 1ct | 1.2 | 1.0 | 1.0 | 1.0 | 1500 | 1-3 | A |
| IS2M-21 | 1:1.15ct | 1.5 | 1.0 | 1.0 | 1.0 | 1500 | 6-4 | B |
| IS2M-23 | 1:1.14ct | 1.2 | 1.0 | 0.7 | 0.8 | 1500 | 1-3 | C |
| IS2M-24 | 1:1 | 1.2 | 0.5 | 0.7 | 0.7 | 1500 | 1-6 | F |
| IS2M-25 | 1:1.36 | 1.2 | 0.8 | 0.7 | 0.9 | 1500 | 3-4 | F |
| IS2M-26 | 1ct: 3ct | 1.2 | 0.8 | 0.7 | 2.1 | 1500 | 1-3 | A |
| IS2M-27 | 1:1.583ct | 1.2 | 0.6 | 0.7 | 1.0 | 1500 | 6-4 | B |

IS2M Series



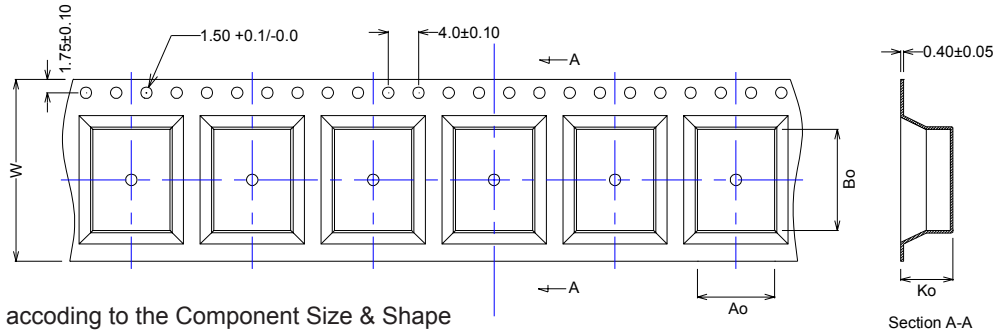
Schematic



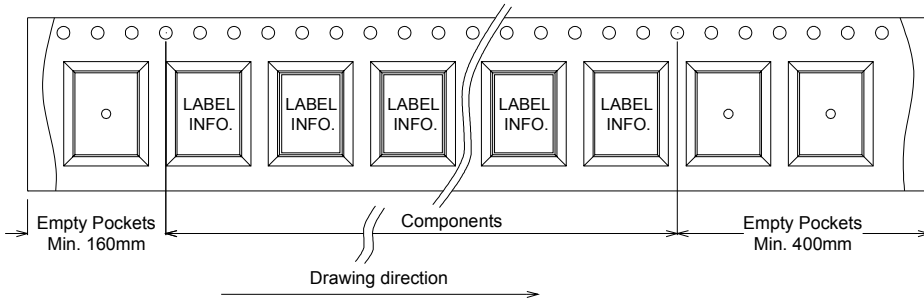
Tape & Reel Packing and Dimensions

Carrier Tape - 1

Carrier Tape Dimensions (12.00mm, 16.00mm & 24.00mm)



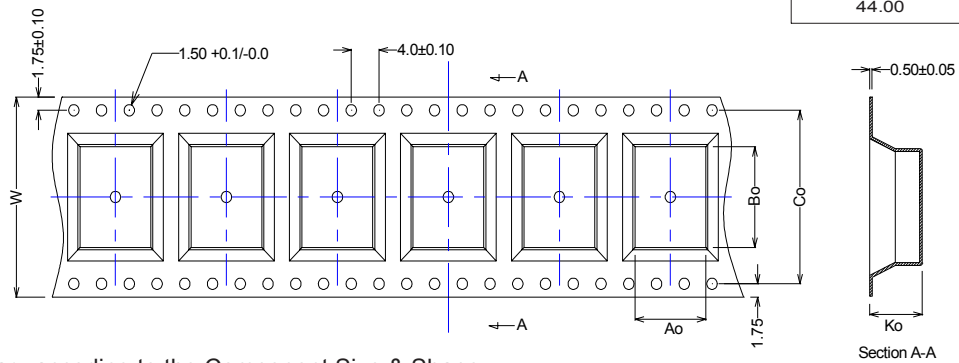
Ao , Bo & Ko - Vary according to the Component Size & Shape



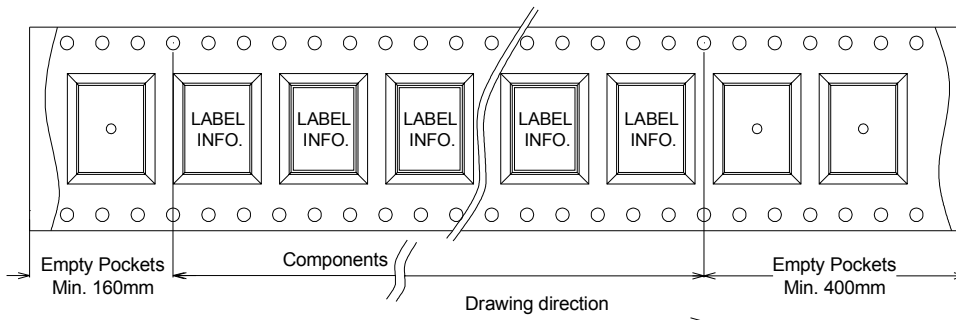
Carrier Tape - 2

Carrier Tape Dimensions (32.00mm & 44.00mm)

| Carrier Tape Dimensions in mm | |
|-------------------------------|------------|
| Width | Pitch (Co) |
| 32.00 | 28.50 |
| 44.00 | 40.50 |

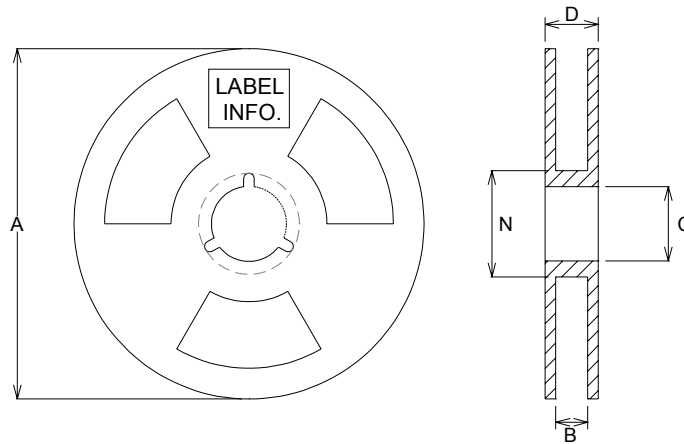


Ao , Bo , Co & Ko - Vary according to the Component Size & Shape



Tape & Reel Packing and Dimensions

Reel Drawing

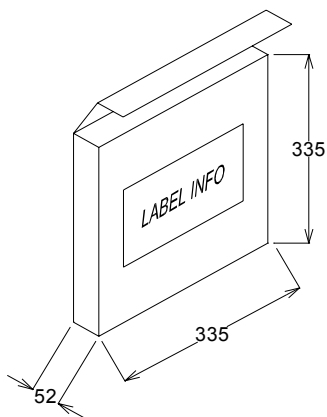


| Reel Dimensions in "mm" | | | | | |
|-------------------------|------|----|-------|----|------|
| Type | A | B | C | D | N |
| 13.00mm | Ø330 | 13 | Ø20.2 | 17 | Ø100 |
| 16.00mm | Ø330 | 16 | Ø20.2 | 20 | Ø100 |
| 24.00mm | Ø330 | 24 | Ø20.2 | 28 | Ø100 |
| 32.00mm | Ø330 | 32 | Ø20.2 | 36 | Ø100 |
| 44.00mm | Ø330 | 44 | Ø20.2 | 48 | Ø100 |

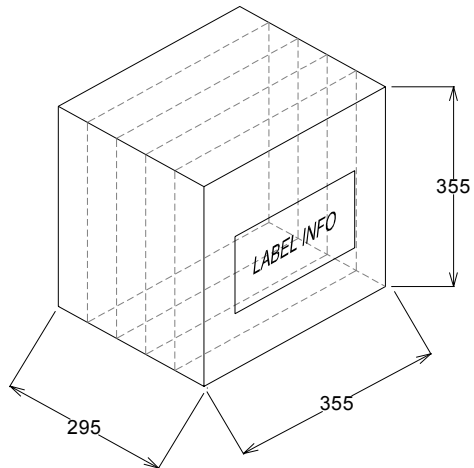
Tape and Reel Packing Details

| Name of the Series | Reel Type | No. of Inside Carton | Quantity (Pcs/Reel) | Quantity (Reel/Cased) |
|--------------------|-----------|----------------------|---------------------|-----------------------|
| MJM | 24.00mm | 5 | 600 | 5/600 |

Inside Carton



Outer Carton



Regional Locations - Design, Manufacturing, Sales & Marketing

Talema Group Regional Offices

North America

United States (Sales & Marketing)

Talema Group, LLC
 PO Box 935
 900 Innovation Drive
 Suite 120, Rolla
 Missouri 65402
 Tel: +1 573-303-3675
 E-Mail:
sales@talemagroup.com
 Web: www.talema.com

Asia

India (Design, Manufacturing, Sales & Marketing)

Administrative Office
Talema Electronic India Private Limited
 Door No. 221, 1st and 2nd Floor
 KJ Plaza, Opp.to Vidya Mandir School
 Meyanur Main Road
 Salem - 636 004 Tamil Nadu INDIA.
 Tel: +91 427 - 243 3100
 Fax: +91 427 - 243 3109
 E-Mail: talema@talemaindia.net
 Web: www.talema.com

Factory Premises
Talema Electronic India Private Limited
 No. 31 & 31, Electronic Industrial Estate
 Suramangalam Post
 Salem - 636 005 Tamil Nadu INDIA
 Tel: +91 427 - 243 3000
 E-Mail: talema@talemaindia.net
 Web: www.talema.com

Europe

Germany (Design, Sales & Marketing)

Talema Elektronik GmbH
 Sembdnerstr. 5
 82110 Germering
 Tel: +49 89 - 841 00 - 0
 Fax: +49 89 - 841 00 25
 E-Mail: info@talema.de
 Web: www.talema.com

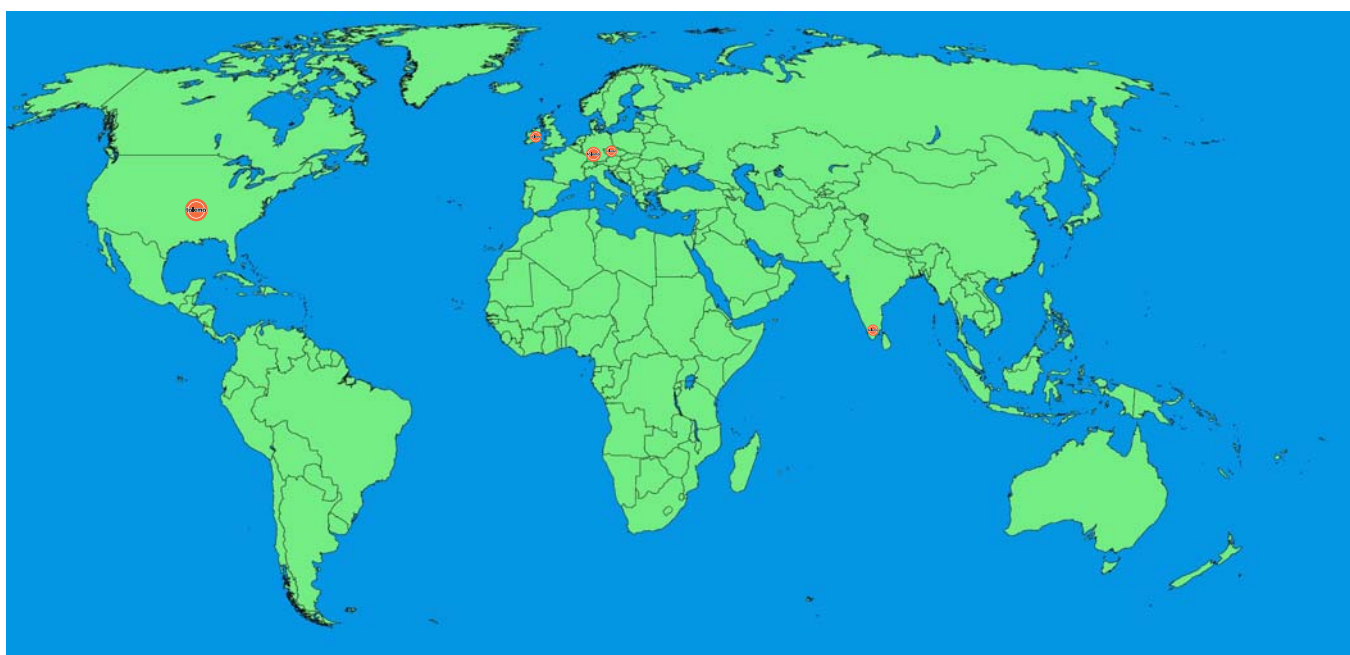
Ireland (Design, Sales & Marketing)

Nuvotem TEO
 Units W & X, Gweedore Business Park
 Derrybeg, Letterkenny, Co. Donegal
 Tel: +353 (0) 74 95 48666
 Fax: +353 (0) 74 95 48139
 E-Mail: info@nuvotem.com
 Web: www.nuvotem.com

Czech Republic (Design, Manufacturing, Sales & Marketing)

NT Magnetics s.r.o.
 Chebská 27
 322 00 Plzeň
 Tel: +420 377 - 338 351
 Fax: +420 377 - 338 350
 E-Mail: talema@talema.cz
 Web: www.ntmagnetics.cz

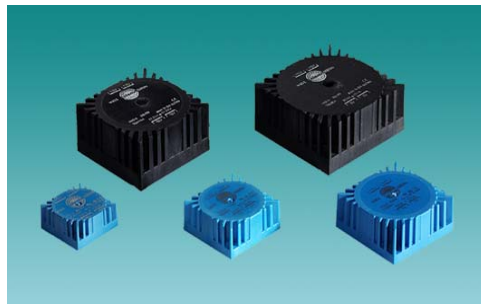
Locations of Talema Group Regional Offices



Summary TOTAL PROGRAM

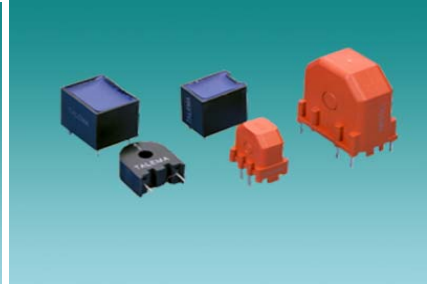
SECTION 1

- TOROIDAL 50/60Hz TRANSFORMERS,
TOROIDAL PCB TRANSFORMERS &
MEDICAL GRADE ISOLATION TRANSFORMERS



SECTION 2

- CURRENT SENSE TRANSFORMERS &
INDUCTORS



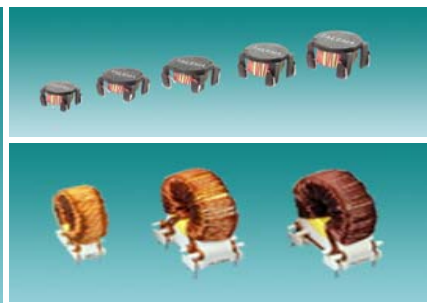
SECTION 3

- CHOKES, INDUCTORS AND TRANSFORMERS
FOR POWER APPLICATIONS



SECTION 4

- Transformers & Inductors FOR
SMPS MAGNETICS REQUIREMENTS

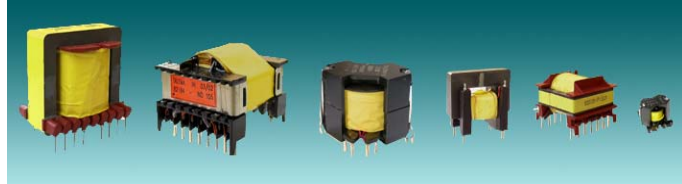


SECTION 5

- COMPONENTS FOR TELECOMMUNICATIONS
AND DATA LINE TECHNOLOGY

SECTION 6

- CURRENT COMPENSATED EMI NOISE
SUPPRESSION CHOKES

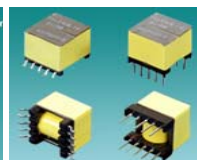
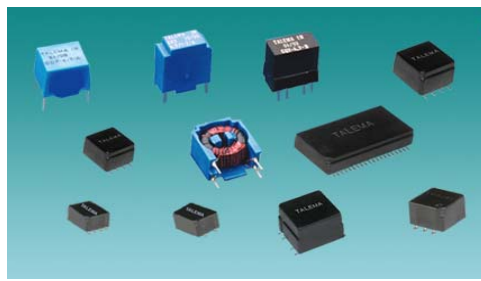


SECTION 7

- LAN MAGNETIC COMPONENTS FOR
ETHERNET APPLICATIONS

SECTION 8

- T1/E1/CEPT-PRI - T3/DS3/E3/STS-1 FOR
TELECOMMUNICATION PRODUCTS



SECTION 9

- TRANSFORMERS FOR BROADBAND ACCESS
AND FIBRE CHANNEL INTERFACE

SECTION 10

- THE TALEMA GROUP BROCHURE
OVERALL PRODUCTS - AN OVERVIEW

