T1/CEPT/ISDN-PRI TRANSFORMERS Quad Port SMT Transformer Modules with **IC Side Protection**





- Eight transformers in a low profile surface mount package
- Includes IC Side Protection Circuit on each channel to suppress low voltage transients
- Compatible with PMC-Sierra's PM 4318 OCTLIU
- Patented "Interlock Base" construction for high reliability
- Minimum Isolation voltage: 1500 Vrms
- Extended temperature range
 - **UL** recognized



NOTE: The crosstalk attenuation is typically 50 dB or better.



Schematic



US 858 674 8100 • UK 44 1483 401 700 • France 33 3 84 35 04 04 • Singapore 65 6287 8998 • Taiwan 886 2 2698 0228 • Hong Kong 852 2788 6588 • http://www.pulseeng.com

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Application Notes

- 1. ET Product All coils have an ET product of 10 V-µsec minimum.
- Flammability Materials used in the products are recognized as UL94-VO approved. Products meet the requirements of IEC 695-2-2 (Needle Flame Test).
- 3. Balance Characteristics The transformers meet the requirements for longitudinal balance of FCC part 68.
- 4. Common Mode Rejection Ratio the CMRR for all transformers is better than 50 dB at 1 MHz. A typical test circuit is shown below.



5. Crosstalk Attenuation — In the dual packages, which contain transmit and receive transformers side by side, sufficient crosstalk attenuation is achieved by the inherent characteristics of the toroid cores as well as by their proper positioning. The crosstalk attenuation is typically 50 dB or better from 100 kHz to 10 MHz. This result was established with the test circuit shown below.



 Return Loss — ITU-T G.703 and European national regulatory documents specify minimum return loss levels. The transformers will allow these limits to be complied within the situations where they are applicable.

Frequency	50-100 kHz	100 kHz-2 MHz	2-3 MHz
Return Loss			
XMIT	9 dB	15 dB	11 dB
REC	12 dB	18 dB	14 dB

 Surge Voltage Capability – All transformers and chokes meet surge voltage tests according to the most stringent regulatory documents when system designs include the proper voltage and current suppression devices:

> Metallic Voltage: 800 V peak, 10/560 µsec Longitudinal Voltage: 2,400 V peak, 10/700 µsec

- Isolation Voltage 100% of transformers are tested during production to the specified isolation voltage level.
- 9. General Information The TX9023 is specifically designed for use in 1.544 Mbps (T1), 2.048 Mbps (CEPT) and ISDN Primary rate (PRI) interface applications. Use of the proper transformer allows the interface circuit to comply with ITU-T G.703 and other standards regarding pulse waveform, return loss, and balance.

For More Information :

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