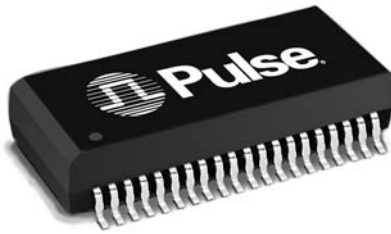


T1/CEPT/ISDN-PRI TRANSFORMER

Quad Port SMT Transformer Module 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 Comet chip (PM4354)
- ⊕ Patented "Interlock Base" construction for high reliability
- ⊕ IC grade transfer-molded package withstands 235°C IR reflow
- ⊕ Minimum Isolation voltage: 1500 Vrms
- ⊕ UL 1950 recognized

Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

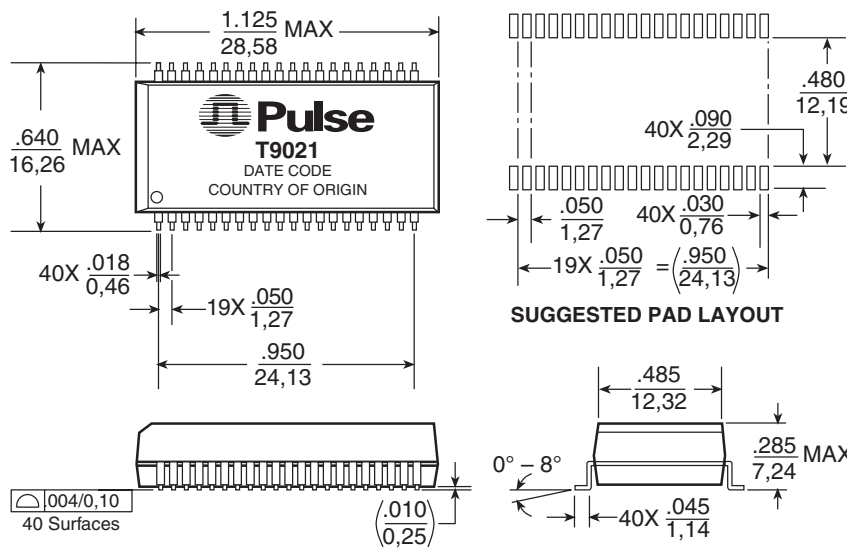
Part Number	Turns Ratio (Pri:Sec ±5%)		OCL (mH MIN)	Cw/w (pF MAX)	LL (μH MAX)	Package/ Schematic
	TX	RX				
T9021	1:2.42	1:2.42	0.6 & 0.6	35 & 35	.60 & .60	QTERA

NOTE: TX = Transmit channel. RX = Receive channel

Mechanical

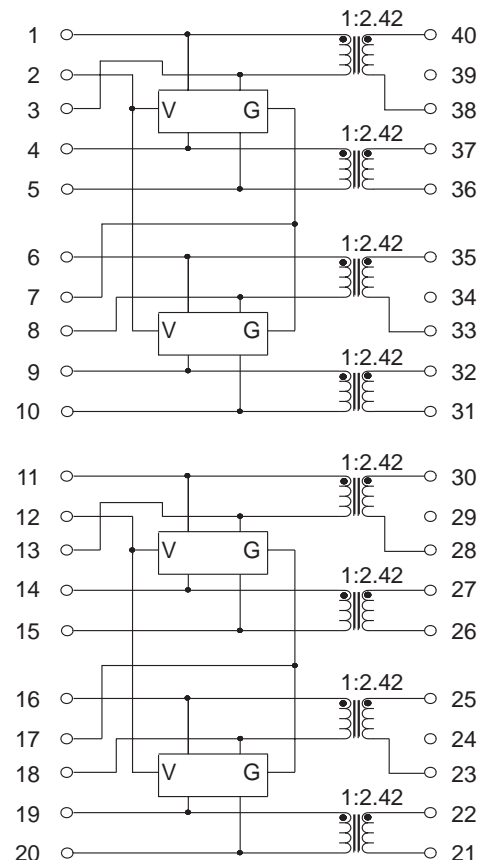
Schematic

QTERA



Weight5.0 grams
Tape & Reel250/reel
Tube15/tube

Dimensions: Inches
mm
Unless otherwise specified, all tolerances are ± .010
0,25



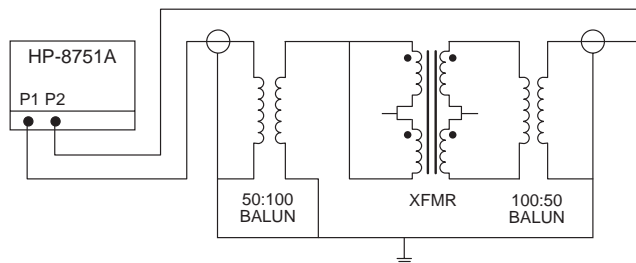
T1/CEPT/ISDN-PRI TRANSFORMER

Quad Port SMT Transformer Module with IC Side Protection

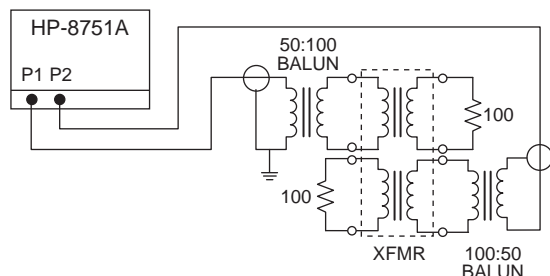


Application Notes

- 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).
- Balance Characteristics** — The transformers meet the requirements for longitudinal balance of FCC part 68.
- Common Mode Rejection Ratio** — the CMRR for all transformers is better than 50 dB at 1 MHz. A typical test circuit is shown below.



- 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.
- General Information** — The T9021 is specifically designed for use in 1.544 Mbps (T1), 2.048 Mbps (CEPT) and ISDN Primary rate (PRI) interface applications. They are matched to the majority of the line interface transceiver ICs currently available. 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 :

UNITED STATES (Worldwide)

12220 World Trade Drive
San Diego, CA 92128
U.S.A.
<http://www.pulseeng.com>
TEL: 858 674 8100
FAX: 858 674 8262

UNITED KINGDOM (Northern Europe)

1 & 2 Huxley Road
The Surrey Research Park
Guildford, Surrey GU2 5RE
United Kingdom
TEL: 44 1483 401700
FAX: 44 1483 401701

FRANCE (Southern Europe)

Zone Industrielle
F-39270
Orgelet
France
TEL: 33 3 84 35 04 04
FAX: 33 3 84 25 46 41

SINGAPORE (Southern Asia)

150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324
TEL: 65 6287 8998
FAX: 65 6280 0080

TAIWAN, R.O.C. (Northern Asia)

3F-4, No. 81, Sec. 1
HsinTai Wu Road
Hsi-Chih, Taipei Hsien
Taiwan, R.O.C.
Tel: 886 2 2698 0228
FAX: 886 2 2698 0948

HONG KONG (China/Hong Kong)

9/F, Phase 2, Tai Sang
Shatin Warehouse Centre
6 Wong Chuk Yeung Street
Fotan, Shatin, Hong Kong
TEL: 852 2788 6588
FAX: 852 2776 1055

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