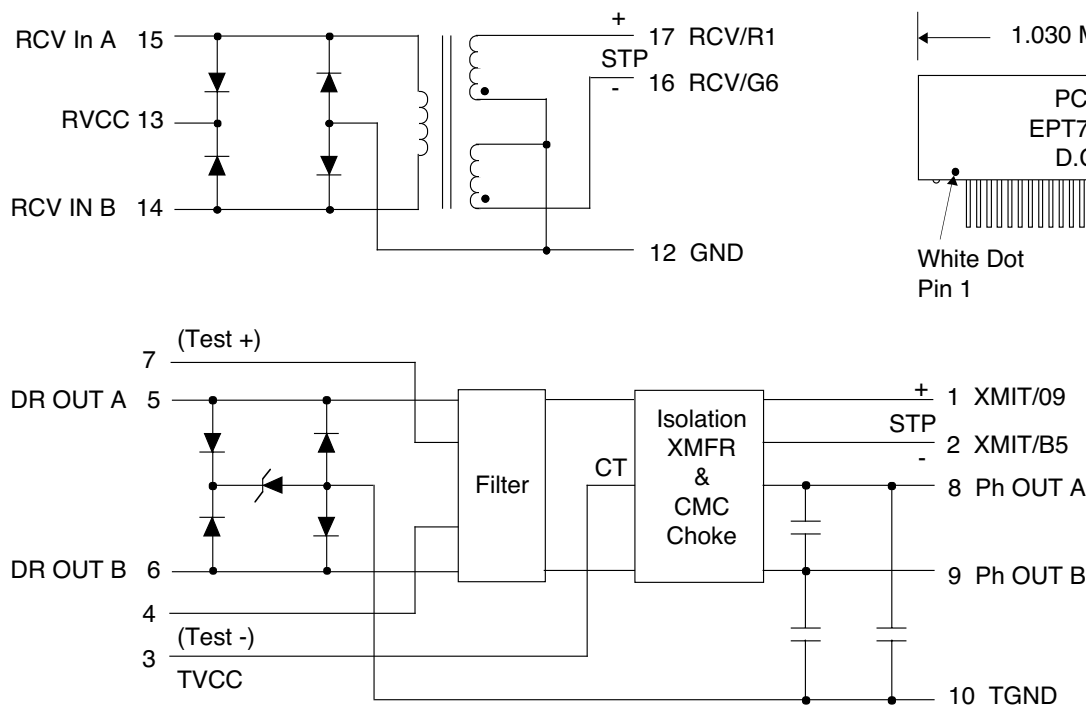


4/16 Mbps Token Ring Transmit and Receive Module

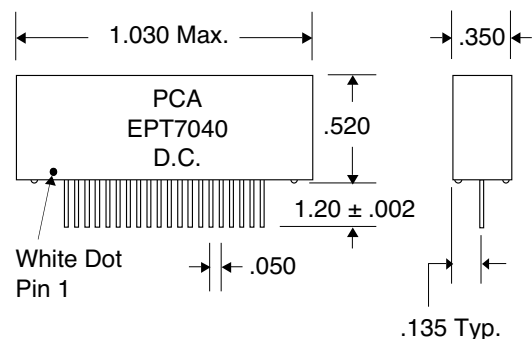
- Features
- Supports STP Transmission
 - Meets IEEE 802.5 Specifications
 - Overvoltage Protection Circuit

PCA Part Number(s)		EPT7040			
Electrical Specifications @ 25°C					
Parameter	Frequency	Specification	XMIT	RCV	Unit
Cut-off Frequency					MHz
Insertion Loss	1-16 MHz	-0.8			dB Max.
	32 MHz	-0.7			dB Min.
	44 MHz	-15.0			dB Min.
	48 MHz	-25.0			dB Min.
Return Loss	1-17 MHz	-14.0			dB Min.
	25 MHz	-8.0			dB Min.
Common-Common Rej.	1-64 MHz	30.0			dB Min.
Impedance Ratio	N/A	Input	600	150	Ω
Isolation		500			Volts
Notes :					

Schematic



SIP Package



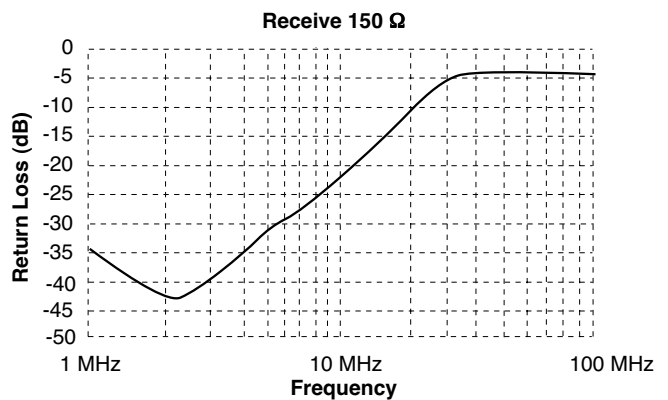
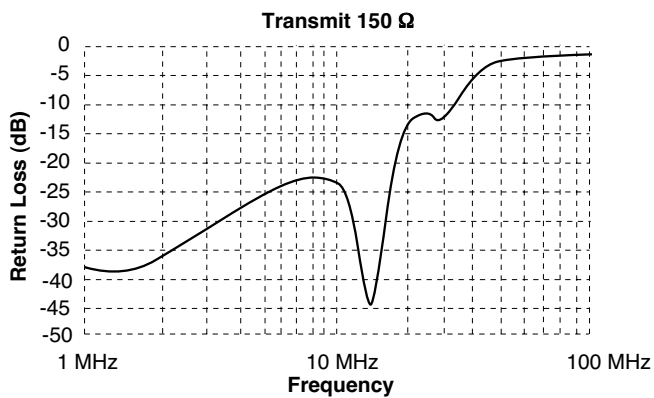
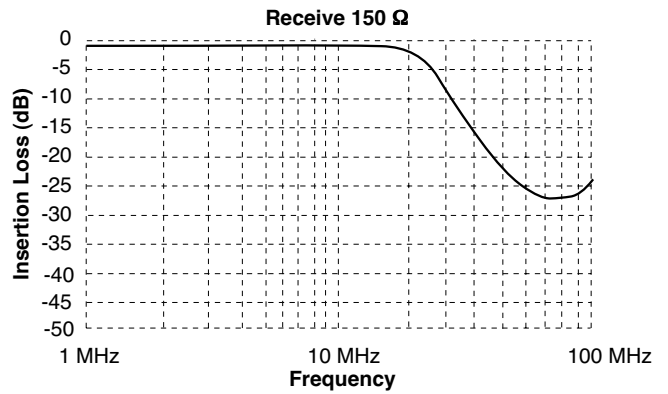
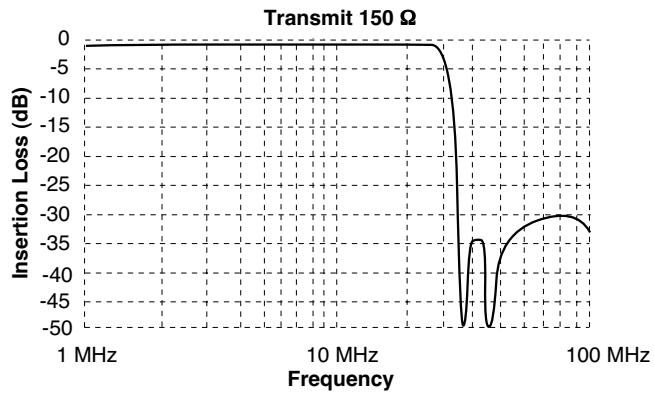
Pin Descriptions for EPT7040

Pin #	Symbol	Function / Description
1	XMIT/09	Balanced bipolar received data from DB-9 pin 1 or the MIC's red wire.
2	XMIT/B5	Balanced bipolar received data from DB-9 pin 6 or the MIC's green wire.
3	TVCC	+5 Vdc ($\pm 10\%$). Used to convert unipolar signals to zero-average balanced bipolar signals.
4	TEST -	Internal Test Point.
5	DROUTA	Unipolar Transmit output data from driver I.C.
6	DROUTB	Unipolar Transmit output data from driver I.C.
7	TEST +	Internal Test Point.
8	PHOUTA	Phantom drive input port used to loop around an activated ring insertion command to the concentrator. Needs over voltage/current limit protection.
9	PHOUTB	Phantom drive input port used to loop around an activated ring insertion command to the concentrator. Needs over voltage/current limit protection.
10	TGND	Common return path, transmit side.
12	RGND	Common return path, receive side connect to diode protection circuit.
13	RVCC	Pull up for receiver side clamping diodes.
14	RCVINB	1/2 of Balanced & Isolated receive data to the I.C.
15	RCVINA	1/2 of Balanced & Isolated receive data to the I.C.
16	RCV/G6	Balanced bipolar signal for DB-9 pin 5, or MIC's black wire.
17	RCV/R1	Balanced bipolar signal for DB-9 pin 9, or MIC's orange wire.

Frequency Responses for EPT7040

TYPICAL RESPONSES @ 25°C

STP

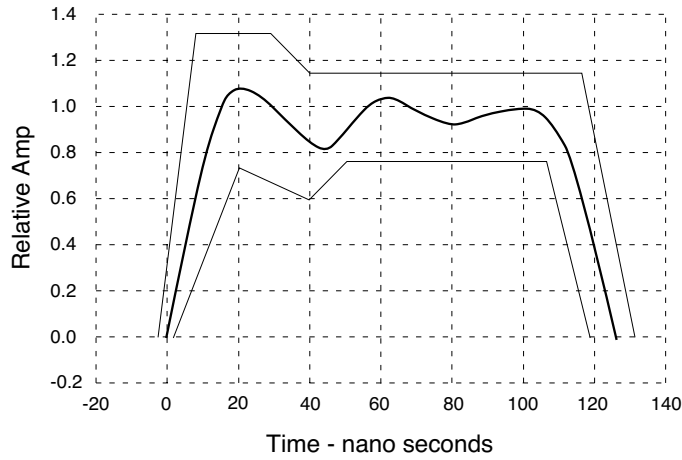


Typical Waveform Templates (STP) for EPT7040

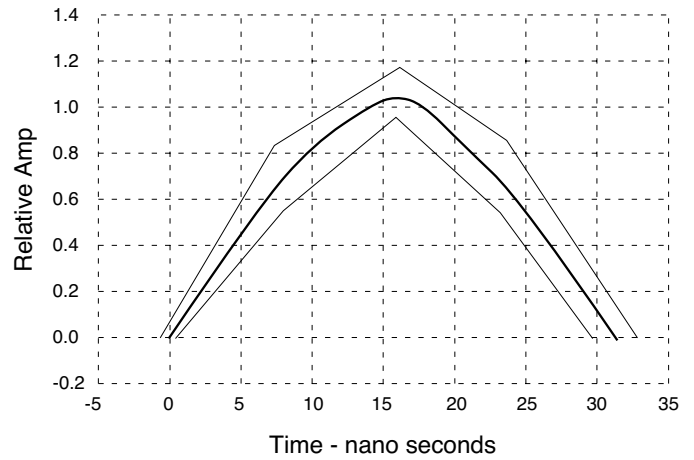
Template Limits From IEEE 802.5 Specifications

TYPICAL RESPONSES @ 25°C

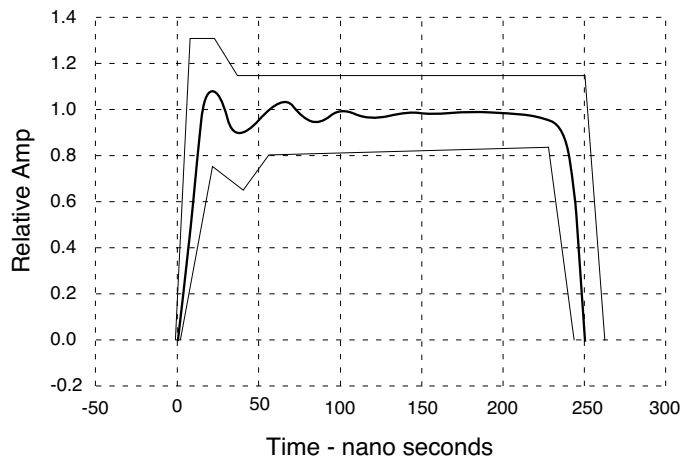
4 Mbps Binary Zero's



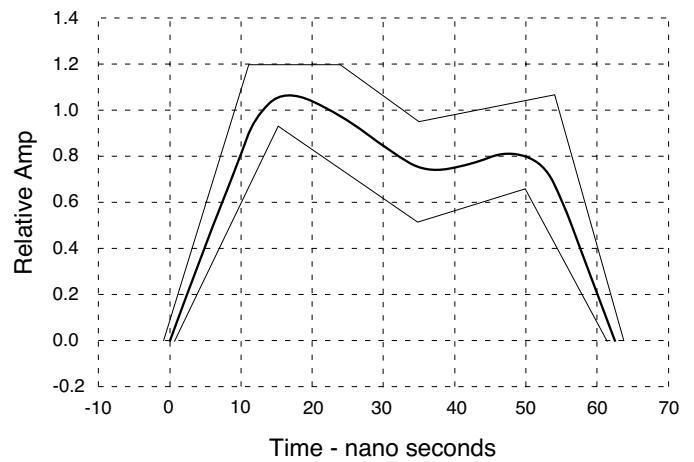
16 Mbps Binary Zero's



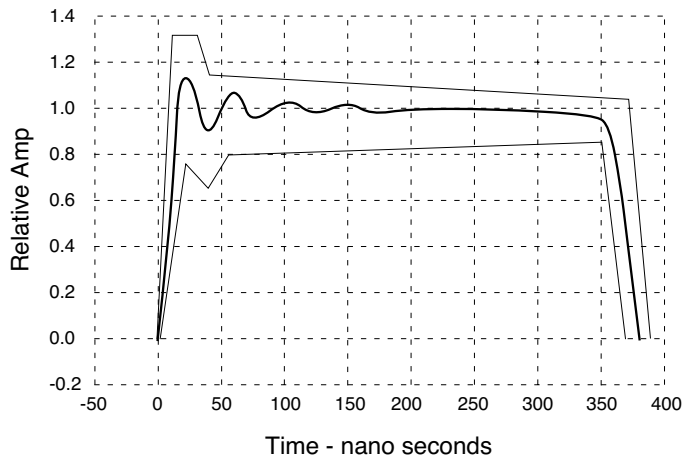
4 Mbps Binary One's



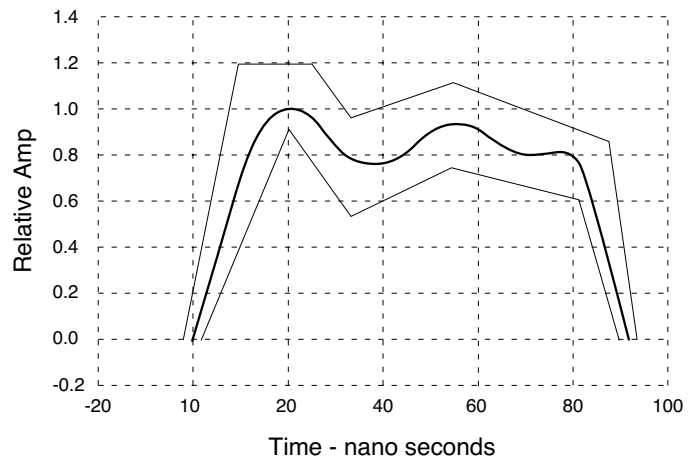
16 Mbps Binary One's



4 Mbps Start Delimiter



16 Mbps Start Delimiter



Typical Connection To TMS38054 or Equivalent



16799 SCHOENBORN ST.
NORTH HILLS, CA 91343
TEL: (818) 892-0761
FAX: (818) 894-5791

Typical IEEE 802.5 Tx Differential Phase Delay:

Frequency in MHz		Delay in nS		
F1	F2	Min.	Typ.	Max.
2	4	0.0		0.4
8	4	-0.3		0.0
8	16	0.6	0.8	1.0 (16-8)
8	24	1.8	2.2	2.6 (24-8)
tdiff = $\frac{\text{Phase at f1}}{360 \times f1}$		–	$\frac{\text{Phase at f2}}{360 \times f2}$	

Typical IEEE 802.5 Specified Tx Return Loss:

Frequency MHz	Loss Min. dB
1 to 6 MHz	-14
6 to 17 MHz	-12
17 to 24 Hz	-8