



5 V **V23806-S84-Z3**

3.3 V **V23806-S84-Z4**

Testboard for ATM, ESCON, Fibre Channel and Gigabit Ethernet 1x9 Transceivers

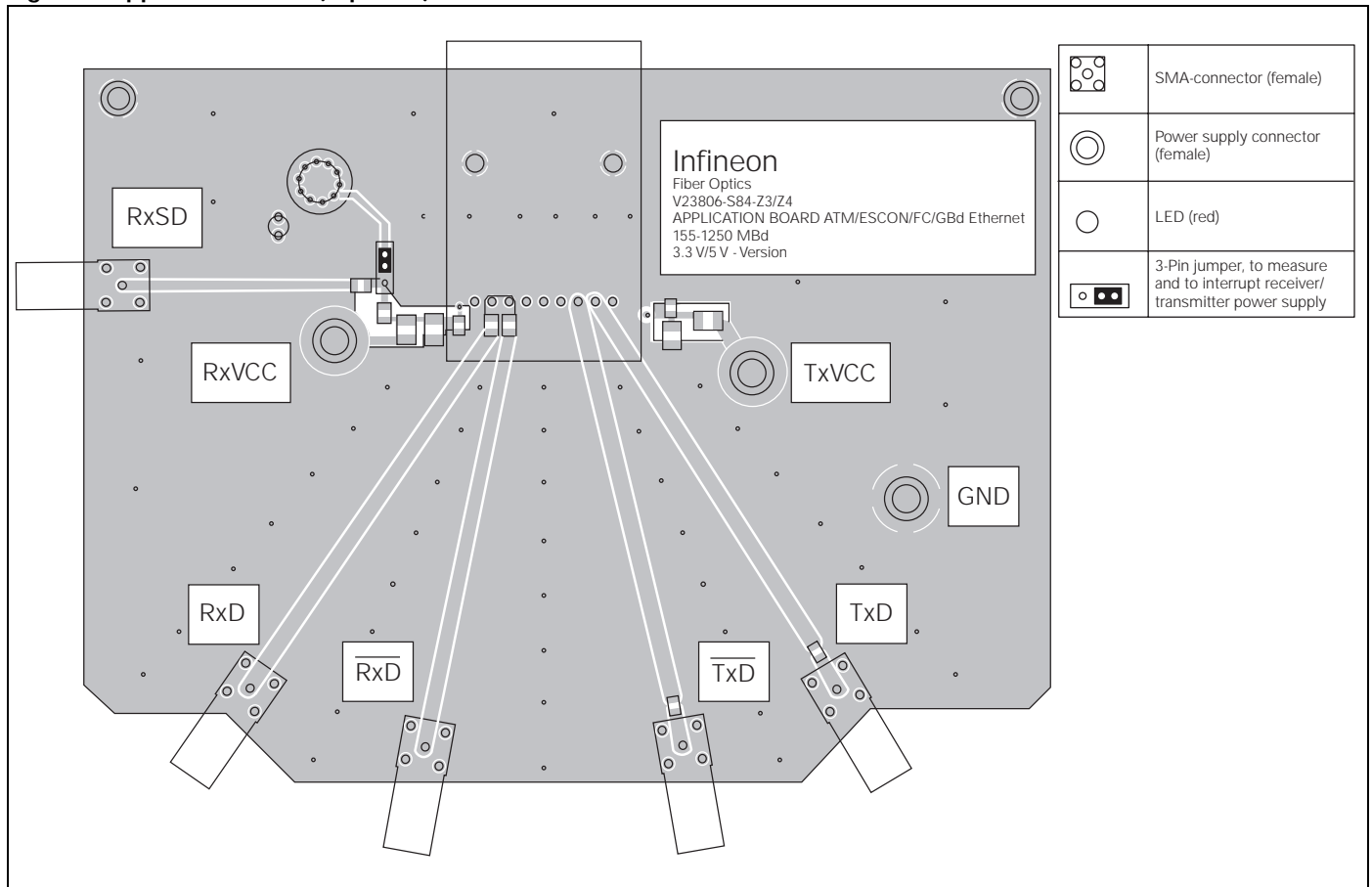
FEATURES

- Allows for separate powering of receiver and transmitter section
- Power supply lines filtered externally to module under test
- Signal Detect level displayed by LED
- Power supply can be interrupted separately for receiver and transmitter
- External Data and Signal Detect interfaces are made through high performance SMA connectors
- Receiver data outputs are DC coupled. Output voltage can be directly measured at SMA connectors

DESCRIPTION

This testboard is a functional test fixture intended for use with the 1x9 pin row single mode 155MBd or 622MBd ATM transceiver, ESCON, Fibre Channel and Gigabit Ethernet transceivers. It provides a test medium for characterizing the performance of these transceivers.

Figure 1. Application board (Top view)



Connectors/Test Pins

Label	Type	Name	Level	Description
SD ⁽¹⁾	SMA	Signal Detect Output	PECL Output	To measure use 50 Ω load to V _{EE}
RxD	SMA	Receiver Data Output	PECL Output	Load is 50 Ω to V _{EE} (GND), DC coupled or AC coupled, depending on board assembly (see page 4)
RxDn	SMA	Receiver Data Not Output	PECL Output	
TxD	SMA	Transmitter Data Input	PECL Input	Load is 50 Ω to V _{EE} (GND), AC coupled (see page 4)
TxDn	SMA	Transmitter Data Not Input	PECL Input	
V _{CC}		Power Supply	In accordance with recommended operating conditions of transceiver (3.3V / 5V)	
V _{EE}		Ground		

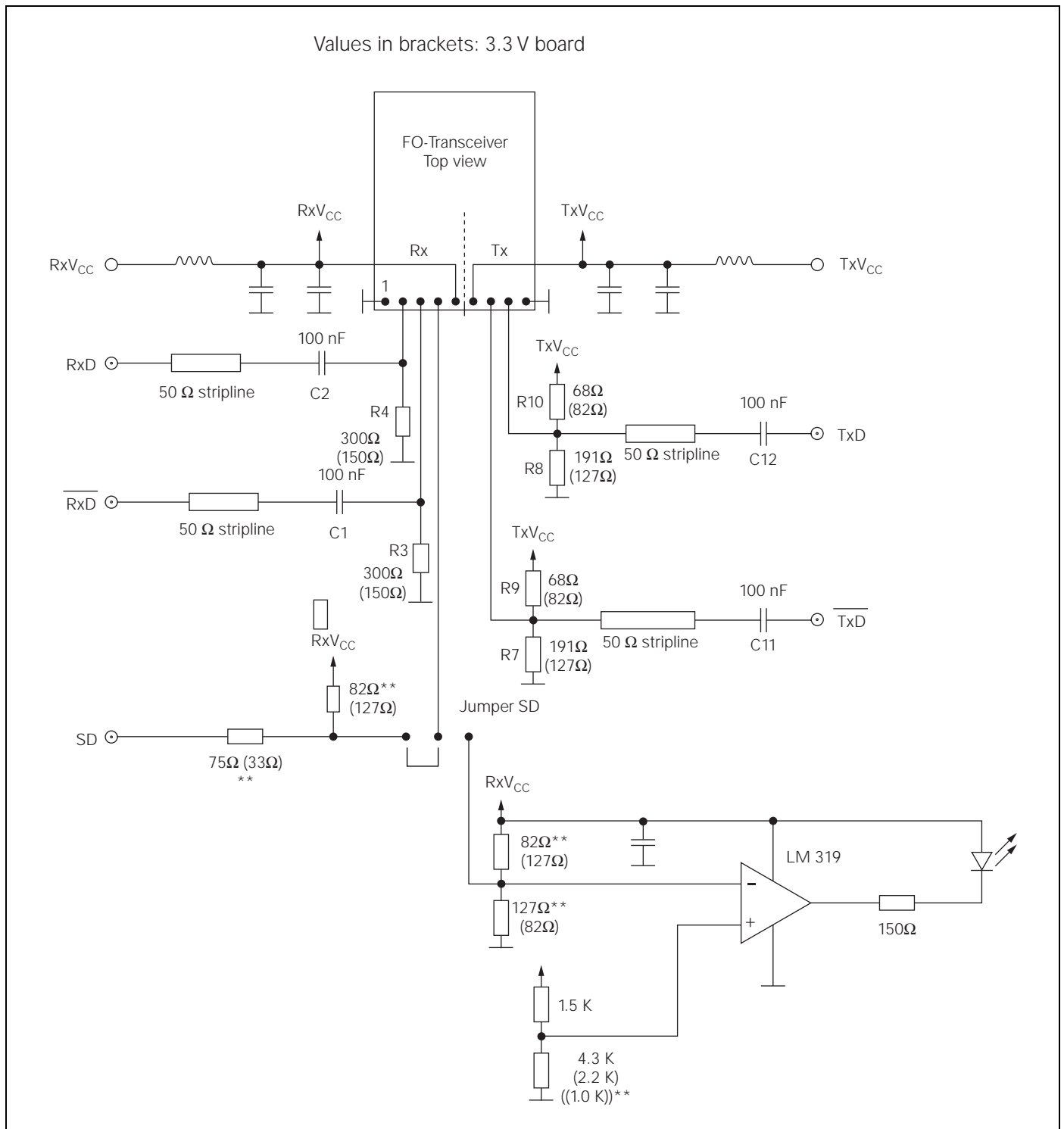
Notes

1. Some transceiver versions have TTL-SD-output. For this type no load is required.

Indicators/Switches

Label	Type	Name	Level	Description
SD	LED	Signal Detect Indicator	active high	LED off: SD off LED on: SD on
JMP	Jumper	Signal Detect		connects signal detect to either SMA connector or OPAMP (LED)

Figure 2. Schematic of Application board (initial assembly)*



* Suitable for DC/DC Transceiver only. For AC/AC and AC/DC please see page 4.

** Remove when TTL-SD; change resistor to value in double brackets.

Variation of Testboard for different type of electrical transceiver interfaces.

Values in brackets refer to 3.3 V operation. Part numbers of passive components refer to Fig. 9 to 12 (Assembly plan).

Figure 3. DC-type receiver (V23826-XXX-C(3)6X, V23806-A84-XXX, V23809-E11-C10) - AC-coupled to test (initial assembly)

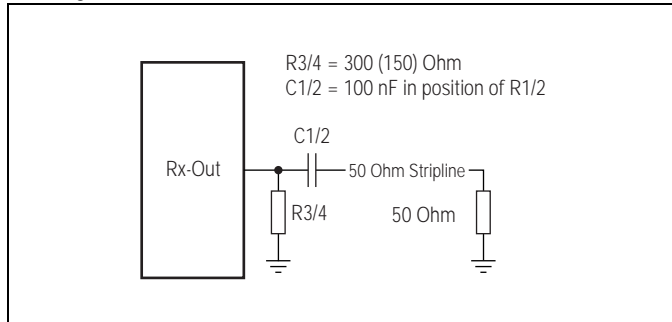


Figure 4. DC type receiver (V23826-XXX-C(3)6X, V23806-A84-XXX, V23809-E11-C10) - DC-coupled to test system

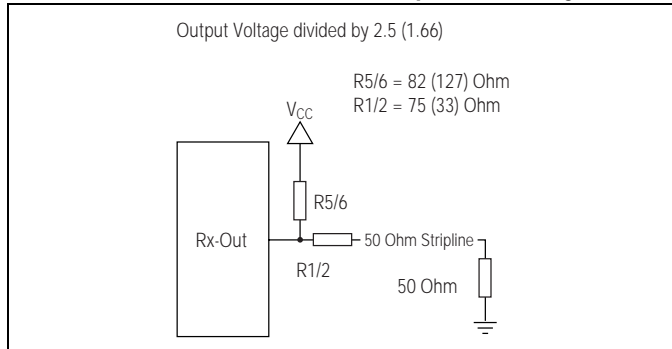


Figure 5. AC-type receiver V23826-XXX-C(3)53

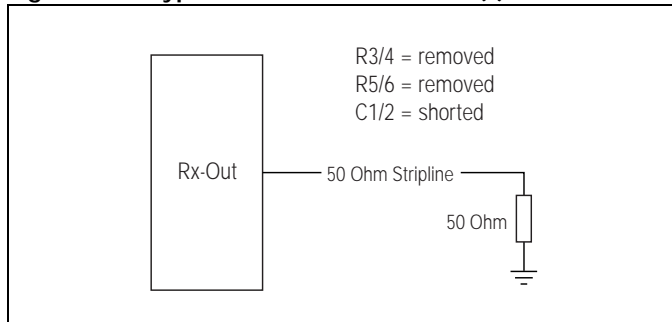


Figure 6. DC-type transmitter (V23826-XXX-C(3)6X, V23806-A84-XXX, V23809-E11-C10) -AC-coupled to test (initial assembly)⁽¹⁾

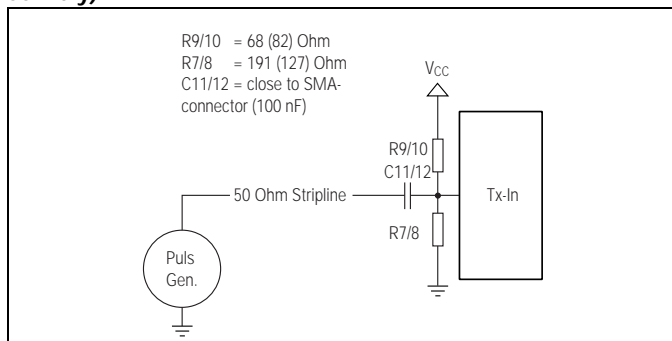


Figure 7. DC-transmitter (V23826-XXX-C(3)6X, V23806-A84-XXX, V23809-E11-C10) - DC-coupled to test⁽¹⁾

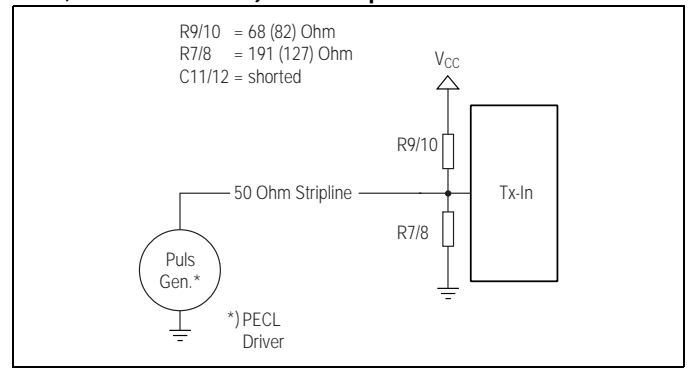
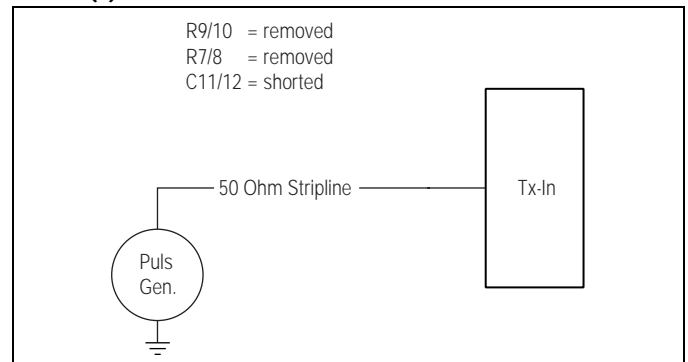


Figure 8. AC-type transmitter V23826-XXX-C(3)13, V23826-XXX-C(3)53⁽¹⁾



Assembly Plan

Figure 9. Top side (Detail of Figure 11)

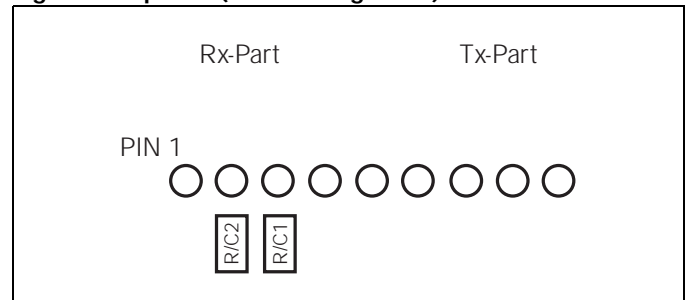
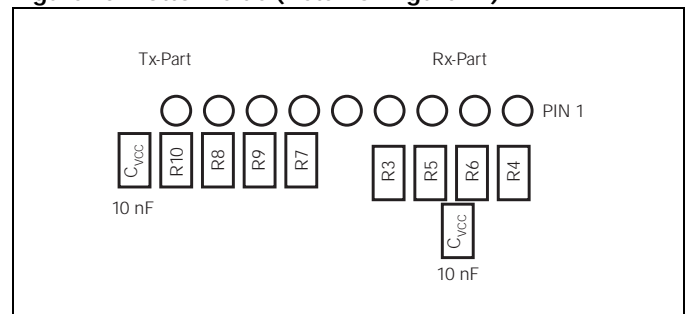


Figure 10. Bottom side (Detail of Figure 12)



Note:

1. It is recommended to drive the transmitter with differential signals.

Figure 11. Top side of application board

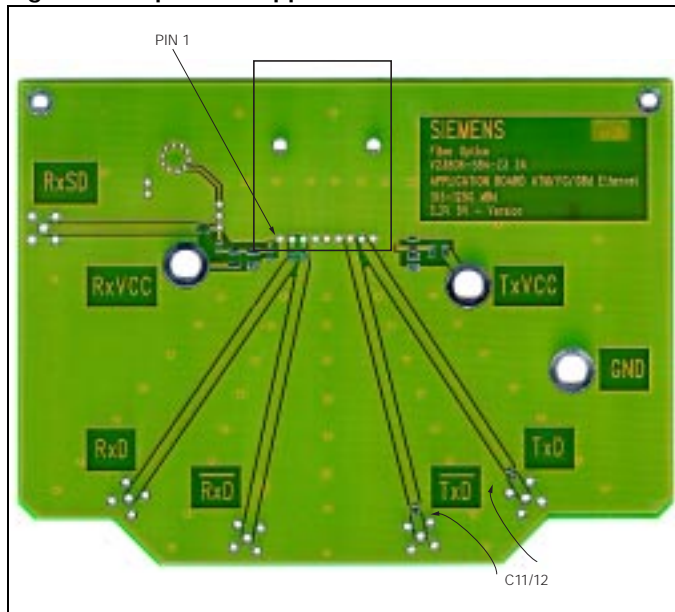
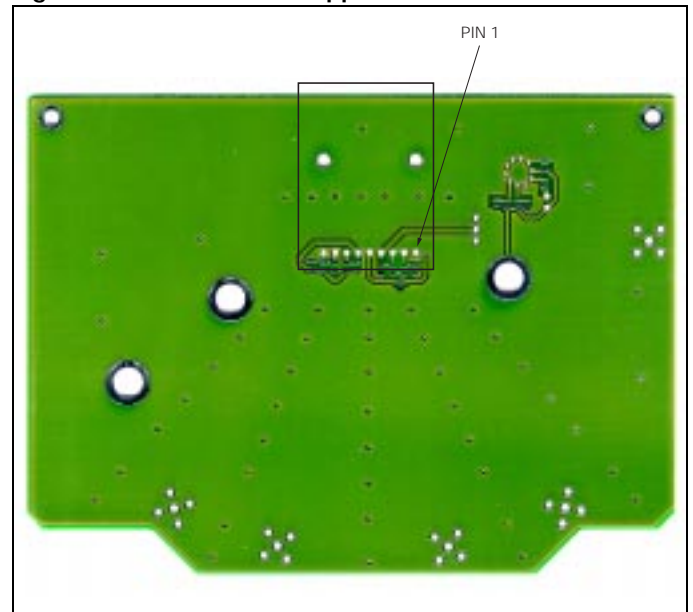


Figure 12. Bottom side of application board



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