



FRF-10A-5L5-701

10Gbps LC Connectorized InGaAs APD plus Pre-amplifier with Flex

FEATURES:

- Fiber stub LC-type optical sub-module with flexible circuit attached.
- Design for Small Form Factor transceivers.
- Supports up to 10.3125Gbps application.
- Photocurrent monitoring available.
- Single power supply +3.3V.



ELECTRO-OPTICAL CHARACTERISTICS: ($T_A = 25^\circ\text{C}$)

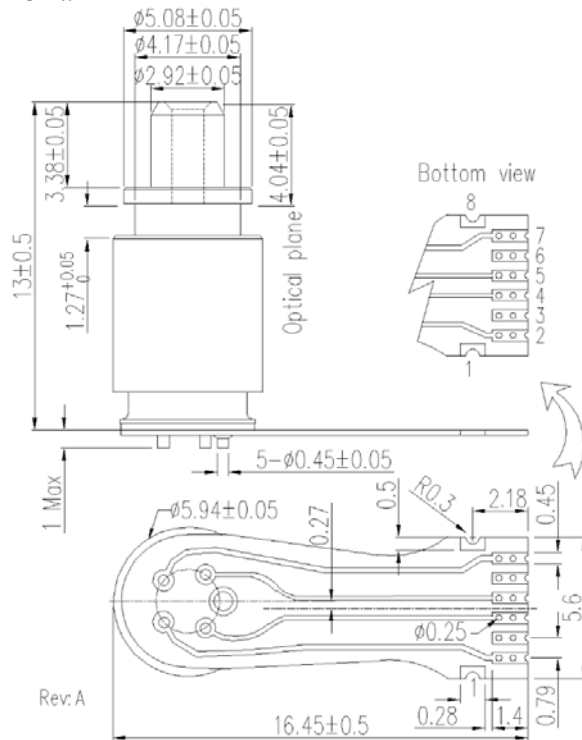
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply	V _{CC}	3.0	3.3	3.6	V	
Supply Current	I _{CC}	27	34	45	mA	no loads
APDTIA Breakdown Voltage	V _{BR}	30	35	40	V	Id =10uA
Operating Voltage	V _{OP}	V _{BR} -3.5				Vcc = 3.3V
V _{BR} Temperature Coefficient	γ	0.02	0.03	0.04	V°C ⁻¹	
Differential Responsivity	Rd	8.0			mV/μW	R _{load} = 100ohm, P=-20dBm,λ=1550nm
Single Ended Responsivity	Rs	4.0			mV/μW	R _{load} = 50ohm, P=-20dBm,λ=1550nm
Small-Signal Bandwidth	BW	6.2			GHz	P = -20dBm
Low-Frequency Cut off	LF	30			kHz	
Saturation Power	P _{Sat}	-5			dBm	Vop = (V _{BR} -3.5V)
Single Ended Output Impedance	R _O	50			ohm	
Wavelength	λ	1260		1600	nm	
Optical Return Loss	ORL	27			dB	λ=1550nm
Sensitivity		-24.0			dBm	λ=1550nm @10.3125Gbps PRBS 31, ER=7dB,BER=1E-12 Vop=(V _{BR} -3.5V)
		-30.0			dBm	λ=1550nm @10.3125Gbps PRBS 31, ER=7dB,BER=1E-3 Vop=(V _{BR} -3.5V)

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	100	$^\circ\text{C}$	
Operating Temperature	-40	85	$^\circ\text{C}$	
Reverse current		3.6	mA	$V_{op} = (V_{BR} - 3.5\text{V})$
Lead Solder Temperature		260	$^\circ\text{C}$	10 seconds
Flex Attach Temperature		370	$^\circ\text{C}$	10 seconds

OUTLINE DIMENSIONS:

• Unit: mm

**Pinout:**

Pin no.	Function
1	Gnd
2	Vcc
3	Gnd
4	Dout(+)
5	Dout(-)
6	Gnd
7	Vapd
8	Gnd