



MiniPR

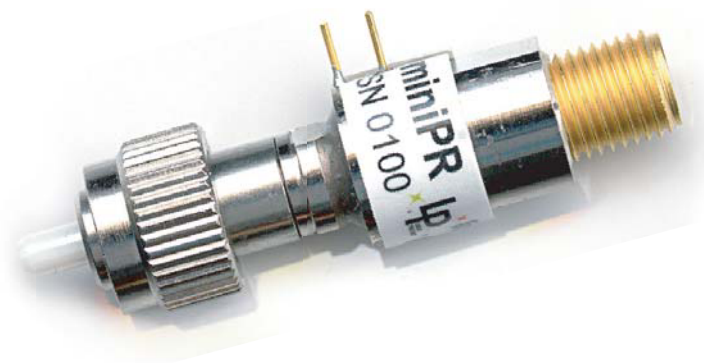
ultraminiature microwave photoreceiver

DIRECT OPTICAL CONNECTION

NO FIBER PIGTAIL

12 AND 20 GHz VERSIONS AVAILABLE

DIRECT OR EXTERNAL BIAS OPTIONS



Linear Photonics' MiniPR represents a breakthrough in size and ease of use, enabling connection of microwave analog photoreceivers directly to optical and RF connectors.

The MiniPR is the world's smallest, lightest and easiest-to-use microwave photoreceiver. By eliminating the fiber pigtail, Linear Photonics has reduced subsystem box size demands by over 80%.

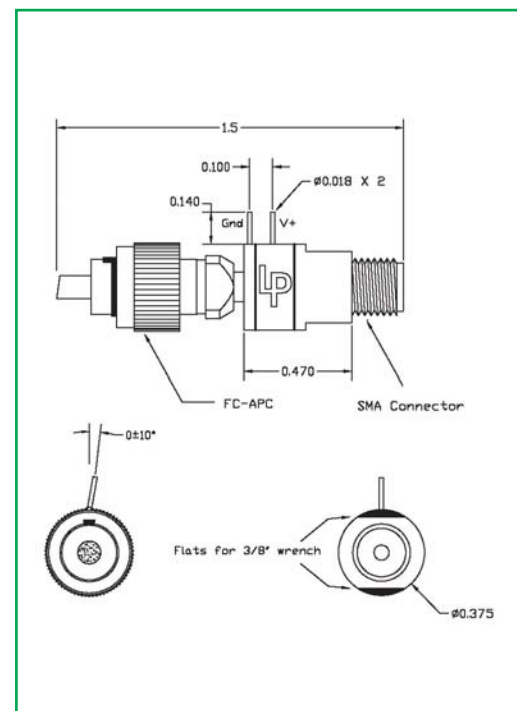
MiniPR is available in bandwidths of 12 or 20 GHz, with options for either RF-coupled or internal DC biasing. It is also available with either FC/PC or FC/APC optical connector.

■ MiniPR PERFORMANCE

	MiniPR-12	MiniPR-20	UNITS
HIGH FREQUENCY CUTOFF	12	20	GHz
LOW FREQUENCY CUTOFF			
-D (bias through DC pins)	DC		
-R (bias through RF connector)	100		MHz
OUTPUT IMPEDANCE	50		ohms
RF RESPONSE FLATNESS (typical)	+/- 1		dB
RF OUTPUT RETURN LOSS (minimum)	-10		dB
OPTICAL WAVELENGTH	1300 - 1600		nm
DC RESPONSIVITY AT 1550 nm / 25°C (typical)	0.85		A/W
OPTICAL INPUT POWER (maximum)	7		mW
DC BIAS VOLTAGE			
-D	+ 5 to + 15		V
-R	-5 to -15		V
OPERATING TEMPERATURE RANGE (note 1)	0 to 50		C
STORAGE TEMPERATURE RANGE	-40 to 85		C
RF CONNECTOR	SMA		
FIBER CONNECTOR			
-S	FC/PC		
-A	FC/APC		

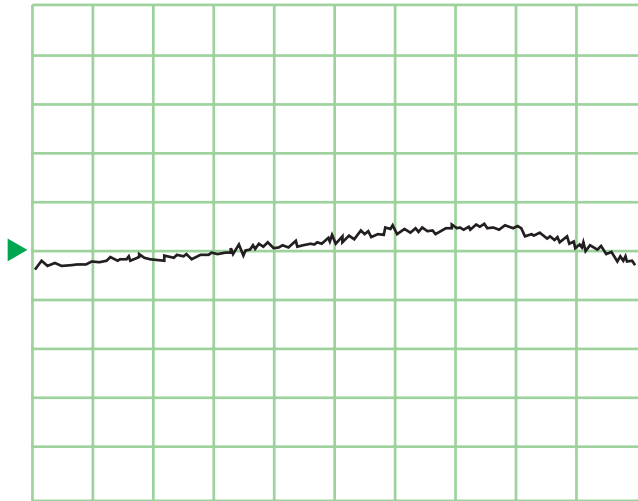
NOTE 1: NONCONDENSING

■ MiniPR OUTLINE DRAWING



RELATIVE O/E RESPONSE

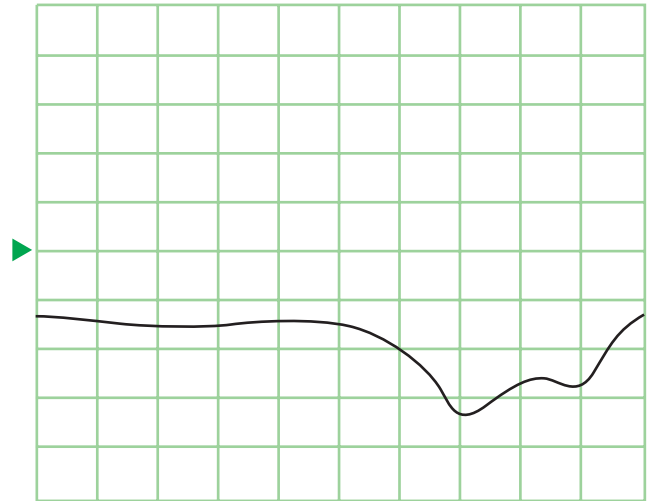
S₂₁ log MAG 2 dB/ REF 0dB



START .130 GHz STOP 20.000 GHz

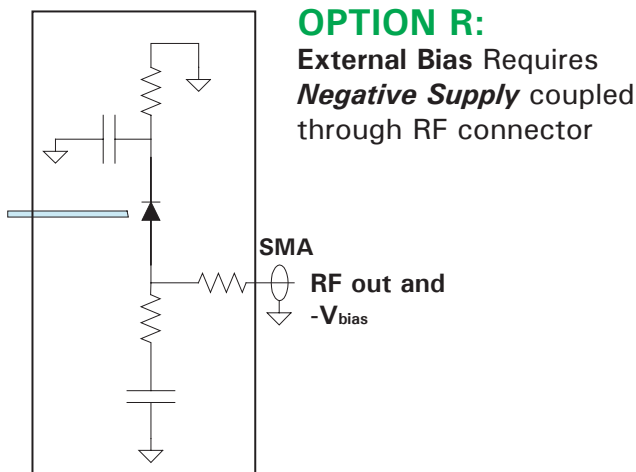
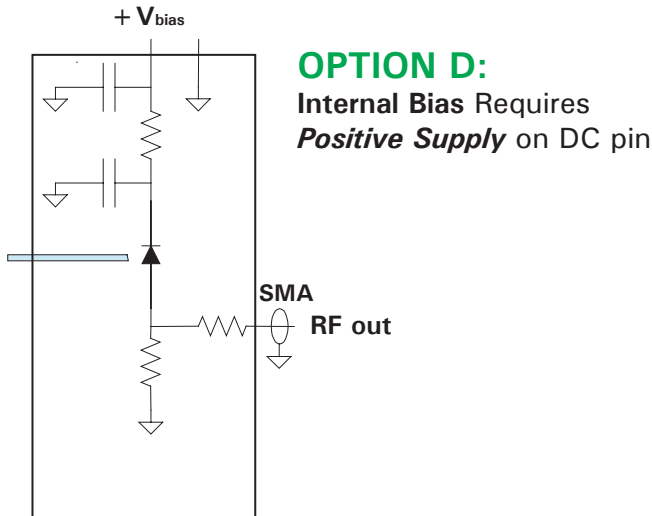
RF OUTPUT RETURN LOSS

S₂₂ log MAG 10 dB/ REF 0dB



START .130 GHz STOP 20.000 GHz

■ MiniPR BIASING SCHEMATICS



■ MiniPR ORDERING INFO

M	i	n	i	P	R	-	f	f	-	b	-	c
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ff: FREQUENCY RANGE

12 = 12 GHz

20 = 20 GHz

b: BIASING TYPE

D = **Internal**
(Positive DC connection to bias pin)

R = **External**
(Negative DC through RF connector)

c: OPTICAL CONNECTOR

S = FC/PC

A = FC/APC

■ MiniPR OPERATING INSTRUCTIONS



Do not torque the miniPR to the SMA connector. Always torque the connector to the unit while holding the body flats with an appropriate wrench. Maximum torque 7 in-lb. Overtorquing will damage the unit.