

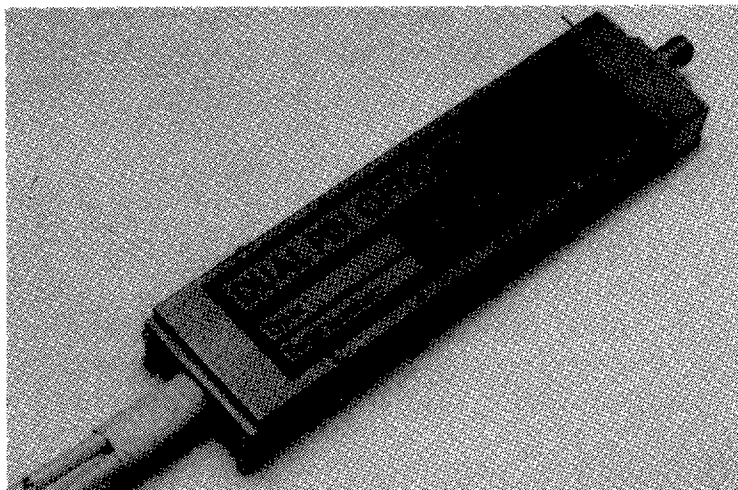
LR4800 Series

WIDEBAND DUAL PIN BALANCED RECEIVERS

These optical receivers use two balanced p-i-n detectors to provide efficient detection with broadband noise cancellation

Features

- Balanced circuit design cancels laser noise
- Built in optical 3dB coupler
- 20dB common mode rejection
- Broadband 10GHz operation
- Direct detection option



Specifications:

All data measured at 25°C

	LR4867			LR4864			Units
	Min	Typ	Max	Min	Typ	Max	
Wavelength	1530	1550	1570	1270	1300	1330	nm
Lower cut-off Frequency (-3dB)		0.5	1.0		0.5	1.0	GHz
Upper Cut-off Frequency (-3dB)	8.0	10.0		8.0	10.0		GHz
InBand Ripple			±1.5			±1.5	dB
Common Mode Ratio	15	20		15	20		dB
Responsivity	700	1000		700	1000		V/W
Input Noise Current		9	12		9	12	pA/√Hz
Output Impedance		50			50		Ω
Output VSWR			2			2	
Optical Return Loss	35			35			dB

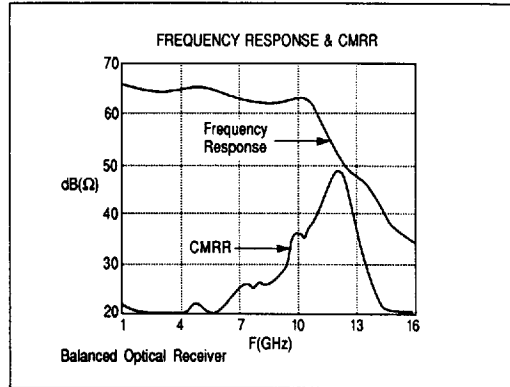
Applications

- Coherent optical systems
- High sensitivity detection
- Test and measurement

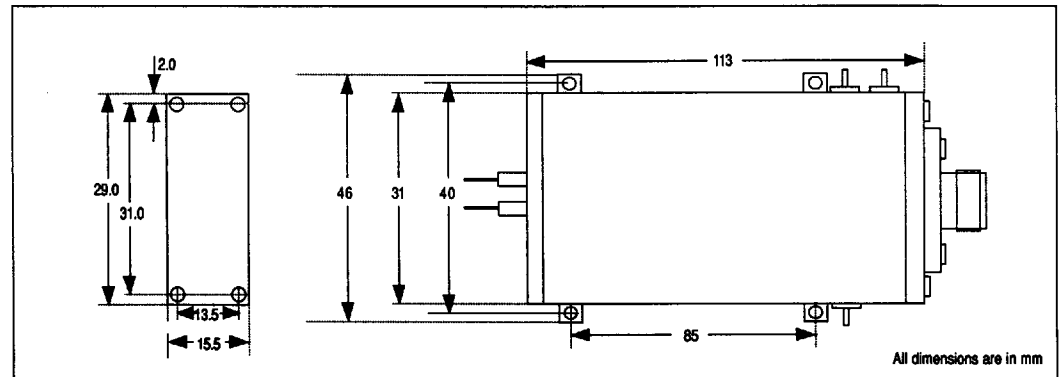
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Measured Data:

All data measured at 25°C



Outline Drawings:



This receiver is intended for use with a signal input and a second, local oscillator, input. It incorporates an optical 3dB splitter, two matched inGaAs PIN photodiodes and a low noise wideband transimpedance amplifier. The balanced construction permits full use to be made of the received optical signal power, while at the same time rejecting intensity-noise present in the local oscillator.

A direct detection version is also available that omits the optical coupler and provides efficient low noise detection of two optical signals 180° out of phase.

Power Supplies

+15V±1V	(max 20V)	175mA
+10V±1V	(max 15V)	1mA
-10V±1V	(max -15V)	1mA

Ordering Information

Wavelength	
LR4867	1.55μm
LR4864	1.33μm

Connectors

The standard products are supplied without fibre connectors. FC/PC, polarisation maintaining and other connectors can be fitted if required. Please contact GMMT for details.

Direct detection and alternative bandwidth/frequency versions are also available.

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Materials Technology

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