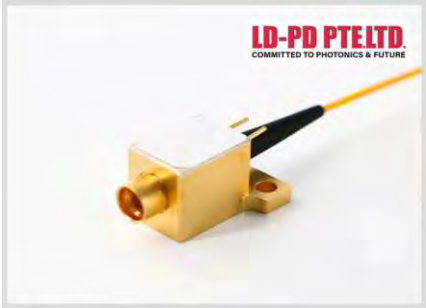
GMM0001 Integrated Miniaturized Optoelectronic Receiving Module



The GMM0001 integrated miniaturized optoelectronic receiving module integrates a low-noise amplifier circuit, adopts FC/APC optical fiber input, SMP RF interface output, and hermetic packaging structure.

The product has the characteristics of miniaturization and high gain, and can be used in high-speed optical communication, microwave photonic links, high-speed test and measurement systems.

Main performance indicators (TC=22±3℃)

Parameter	Test Conditions	Parameter index	Unit
Responsivity R_e	V_R=5V, λ=1.55μm, P_{in}=10mW	≥0.80	A/W
3dB bandwidth f_{3dB}	V_R=5V, λ=1.55μm, P_{in}=10mW, RF_{in}=-10dB	0.8～18	GHz
In-band flatness F	V_R=5V, λ=1.55μm, P_{in}=10mW, RF_{in}=-10dB, f_{BW} =0.8 GHz～18.8 GHz	≤±1.5	dB
Output standing wave ratio VSWR	V_R=5V, λ=1.55μm, P_{in}=10mW, RF_{in}=-10dB, f_{BW} =0.8 GHz～18.8 GHz	≤2.5:1	-
Saturated input optical power P_S	V_R=5V, λ=1.55μm, f_c=9.8 GHz, RF_{in}=-10dB	≥10	mW
Gain G	V_R=5V, λ=1.55μm, f_c=9.8 GHz, RF_{in}=-10dB, RF_{in}=-10dB	≥13	dB
LNA operating current I_{cc}	V_R=5V, λ=1.55μm, P_{in}=10mW	60～90	mA

Absolute Maximum Ratings

Parameter	Rating Value	Unit
Storage temperature range T_{STG}	-45～+85	℃
Operating temperature range T_C	-40～+70	℃
Bias voltage V_R	4.5～5.5	V
Light incident power P_{in}（V_R=5V）	≤13	mW
Soldering temperature Tsolder	260（10s）	℃
Electrostatic discharge sensitivity ESD	≥250	V

Typical characteristic curve

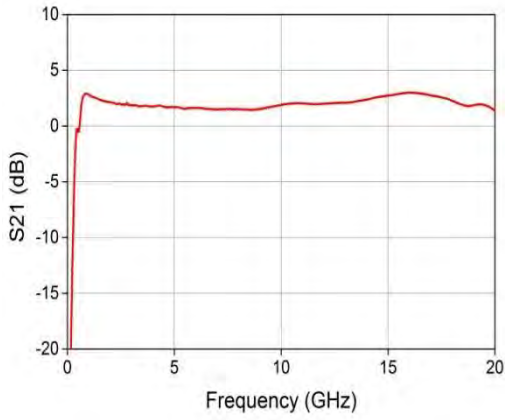


Figure 1 Frequency response curve

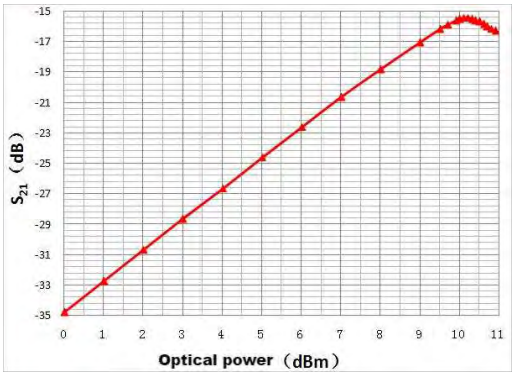


Figure 2 Saturated input optical power curve

Package outline, dimensions and pin definition

(unit: mm)

