

M3135GP100 3.1-3.5G 100W

ELECTRICAL SPECIFICATIONS @ +28 VDC, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	3100		3500	MHz
Power Output CW	P _{SAT}		150		Watt
Power Output @ 1dB G.C.P	P _{1dB}		80		Watt
Power Gain @ 1dB G.C.P	G _{1dB}	40	50		dB
Input Power for Rated Output	P _{IN}		0	10	dBm
Small Signal Gain Flatness @ Any 50MHz BW	ΔG			±1.0	dB
Peak to Average , Spread Spectrum	CF		6		dB
Modulated Power Output	P _{MOD}		25		Watts
Error Vector Magnitude @ 45.5dBm	EVM			5	%
Input Return Loss	S11			-10	dB
Output Return Loss	S22			-14	dB
Noise Figure	NF			15	dB
Third Order Intercept Point	IP3		58		dBm
Harmonics @ rated P1dB G.C.P	H		-20		dBc
Spurious Signals	Spur		-80	-70	dBc
Operating Voltage @ rated Pout	VDC	26	28	30	Volt
Current Consumption @ 50Watts	IDD _o			10.7	Amp
Current Consumption @ Standby	IDD _s			0.35	Amp
Switching Time	T _{ON/OFF}			100	uSec
Forward Output Coupler	F/R _{MON}		50		dBc
Forward Output Coupler directivity		20			dB
Forward/Reverse Monitor Dynamic Range	F/R _{DET}	23		53	dBm
Forward/Reverse Accuracy (RMS)			±1.0/±2.0		dB

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Limits
Operating Case Temperature	T _c	-40		+85	°C	
Storage Temperature	T _{stg}	-40		+85	°C	
Relative Humidity (non-condensing)	RH			95	%	
Altitude (MIL-STD-810F Method 500.4)	ALT	10,000	40,000		Feet	
Vibration/Shock MIL-STD-810F Method 514.5/516.5 – Proc I	VI/SH		Airborne			

LIMITS

Parameter	Value	Limits
Input Overdrive	+26dBm	
Load VSWR	∞ @ all load phase & amplitude	
Reflected Power Protection	Integrated isolator	
Thermal Overload	None	Max

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions max	244 x 168 x 30	mm	
Weight	TBD	lb.	
RF Connectors In/Out/Monitor	SMA female		
DC Connectors	Screw Block	MOLEX 38720-3202	
Data Connector	15-Pins(MIL-DTL-83513)	M83513/13- B01NP	
Cooling	External Heat-sink required		

DC CONNECTOR- D-Sub, 15-Pins(MIL-DTL-83513)

Pin #	Description	Specifications
1	EN	Enable Command 3V3 LVCMOS Logic Low (Logic 0) = Standby Mode High (Logic 1) = Operational Mode (Default)
2	EN_RTN	GND
3	Fault Monitoring BIT	3V3 LVCMOS Logic Low (Logic 0) = Alarm High (Logic 1) = No Alarm Valid 1mS after entering Enable Mode, valid with or without RF drive, not valid in Standby Mode False alarm rate: <0.1%
4	BIT_RTN	GND
5	TEMP INDICATION	> 85°C case temperature(0 to 3V Analog signal)
6	TEMP_RTN	GND
7	FWD	Forward Power (0 to 3V Analog signal) Accuracy:±1dB via internal coupler & detector Integrated time constant: 1mS
8	FWD_RTN	GND
9	REV	Forward Power (0 to 3V Analog signal) Accuracy:±1dB via internal coupler & detector Integrated time constant: 1mS
10	REV_RTN	GND
11-15		Spare

Outline Drawing TBD

