

M0404GP25 400-485MHz 25W

**SUNGSAN**

Electronics & Communications Co., Ltd.

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	400		485	MHz
Output Power CW	P _{CW}		40		Watt
Output Power @ 1dB G.C.P	P _{1dB}	25			Watt
Small Signal Gain	G _{SS}	46	-	48	dB
Gain when muted	G _{mute}		-40	-20	dB
Small Signal Gain Flatness	ΔG		±0.25	±0.5	dB
Third Order Intercept Point 2-Tones, P _{out} = 2W/Tone, Δ = 25 - 500KHz	IP3		+54		dBm
Input/Output Return Loss	S ₁₁ /S ₂₂			-14/-10	dB
Noise Figure	NF		7	10	dB
Harmonics @ P1dB G.C.P	H			-40	dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDC	26	28	30	Volt
Supply Current @ P _{out} = 25W CW	IDD		3.0		Amp
Supply Current @ P _{out} = 4W Composite	IDD		1.6	2.0	Amp
Supply current when muted	I _{ddmute}		200	300	mA

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		30,000		Feet	
Vibration/Shock MIL-STD-810F Method 514.5/516.5 – Proc I	VI/SH		Airborne			

LIMITS

Parameter	Value	Limits
Thermal Overload	85°C shutdown	Max
Input Overdrive	+6 dBm	Max
Over Power Shutdown	Optional	Min
Load VSWR @ 25 W	∞ @ all load phase & amplitude	Nom

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	5.0 x 3.75 x 1.0	Inch	Max
Weight	1.0	lb.	Max
RF Connectors In/Out	SMA Female		
DC / Shutdown			
DC Connectors	D-sub, 9 Pins, Male		
Cooling	External Heatsink		

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DC CONNECTOR- D-Sub, 9Pin, Male

Pin #	Description	Specifications
1	Forward Power Monitor	Continuous Analog voltage relative to forward power via RMS detector FWDM: 23 - 43dBm @ 0 - 5V (200mV/dB) 28dBm output = $V_{FWD} = 1.5VDC$
2	Reverse Power Monitor	Continuous Analog voltage relative to reflected power via RMS detector REVM: 23 - 43dBm @ 0 - 5V (200mV/dB)
3	Current Consumption Monitor	Analog voltage relative to ID @ 50mV/100mA
4	Temperature Monitor	Analog voltage relative to Module's Temperature @ 500mV+10mV/°C, 0°C = 0.5V
5	Mute	Enable: TTL "Low" or Open Disable: TTL "High"
6	+VDD	+28 ± 2VDC
7	+VDD	+28 ± 2VDC
8	GND	Ground
9	GND	Ground

Outline Drawing

