



T/R MODEL MMTR4658P37A
4.6~5.8GHz
5 Watt
NARROW HIGH POWER RF AMPLIFIER

Advantages:

- Operating Frequency: 4.6~5.8GHz
- Power Gain: 47dB Min
- Supply Voltage: +24V
- 50 Ohms Input and Output Matched

ELECTRICAL SPECIFICATIONS @ +24VDC, 25°C, 50Ω

Parameter		Symbol	Min	Typ	Max	Units
TX	Operating Frequency	BW	4.6		5.8	GHz
	RF Output Power @Pin=10dBm, QPSK SRRC beta=0.3	Pout	37			dBm
	Power Gain@0dB Attenuation	G _p	47			dB
	Power Gain Flatness	Δ G _p		±1	±1.5	dB
	ACPR@0.2MHz to 40MHz, PAPR of QPSK =4.3dB	ACPR			-35	dBc
	Input Return Loss	S ₁₁			-15	dB
	Harmonics 2 nd , 3 rd @Psat	H			-80	dBc
	Coupler @Psat	C			-10	dB
RX	Operating Frequency	BW	4.6		5.23	GHz
			5.17		5.8	GHz
	Gain@ 0dB Attenuation	G		20		dB
	Gain@ Flatness	ΔG		±1		dB
	Output @in=-10dBm,ATT10dB	Pout			0	dBm
	Passband suppression@4.42GHz,5.407GHz,4.936GHz, 6.03GHz				-54	dBc
	Noise Figure	NF			4	dB
	Input Return Loss	S ₁₁			-15	dB
Attenuator Range		ATT		20		dB
Attenuator step		ATT _{STEP}		0.5		dB
T/R Switching Time@1kHz TTL		T _{ON/OFF}			12	μS
Spurious Signals@≤4.14GHz, ≥6.38GHz		Spur			-60	dBc
In/Output Impedance		Impedance		50		Ω
Operating Voltage		V _{DC}	9	24	32	Volt
DC Current@Psat		I _{DD}		2.5		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	94x72x19 [3.70x2.83x0.74]	mm [inch]	Maximum
Weight	0.2 [0.44]	kg [lbs]	Maximum
RF Connectors	SMA, Female		
DC Interface Connector	S07B-PACK-2		
Cooling	External Heatsink Required(Not Supplied)		



ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		60	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm(Max)
Load VSWR @ POUT =3W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C @heatsink

POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Description	Specifications
1	VDD	+24.0V _{DC}
2	VDD	+24.0V _{DC}
3	GND	Ground
4	CAN-TX	CAN-TX
5	CAN-RX	CAN-RX
6	GND	Ground
7	TR_SWITCH	Amplifier Enable: TTL Logic High(3.3V)(Internally Pulled-Low)