TRANSCOM

TAN020-060-50-50

PRE1_2025/FEB

2 ~ 6GHz GaN 100W High Power Solid State Power Amplifier Module

FEATURES

- Freq : 2 ~ 6 GHz Full Band
- P_{sat} : 100W, typ.
- Pin : 0 ~ +5dBm
- Designed with GaN solution, combined with 4x balanced sub-modules with 8x GaN transistors, enhancing for better stability & fine-tuning flexibility.

ELECTRICAL SPECIFICATIONS (@+30 VDC, 25°C)

Parameter	Min	Typ	Max	Unit	Remark
Operating Frequency	2		6	GHz	
Power Output, Psat		+50		dBm	@0dBm Pin
Input Power	0		+5	dBm	
Power Gain		50		dB	
Input VSWR			2.0:1		
Output VSWR		2.0:1	2.5:1		
Non-harmonic Spurious		-60		dBc	
2nd harmonic		-10		dBc	
Operating Voltage**	+29	+30	+31	Volt	

NOTE - **Amplifier can continuously operate up to +31V max with higher output power, without damage.

Mechanical Specification

Parameter	Value	Units
Dimensions	220 x 140 x 30, typ.	mm
RF Connectors In/Out	Input: SMA 4 Holes Female ; Output: N Female	
DC & Control Connectors	D-Sub 25-pin	
Cooling	External Heatsink is required (by customer)	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Min	Typ	Max	Unit	Remark
Operating Temperature***	-40		+65	°C	Baseplate(Case)
Storage Temperature	-40		+85	°C	
Relative humidity (non-condensing)			95	%	
Cooling	External heatsink is required by the customer				

NOTE – ***For the better MTBF of long-time operation, Transcom strongly suggest the customer's system to equip with sufficient heatsink for keeping the amplifier baseplate(case) temp below the maximum specs temp(+65C)

RF ON / OFF, PROTECTIONS, MONITORING

Parameter	Value	Remark
RF On/ Off	Enable: TTL 'H', Disable: TTL 'L'	
Input Power	+10dBm, max.	Without damage
Over Current Protection	available	
Temperature Monitor,Vdet out(temp)	available	
Current Monito, Vdet out(current)	available	
Over Temperature Auto-Shutdown	available	

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INTERFACE CONNECTORS

D-Sub, 25-Pin

D-Sub Pin Assignment			
1	Vdc IN	14	GND
2	Vdc IN	15	GND
3	Vdc IN	16	GND
4	Vdc IN	17	GND
5	Vdc IN	18	GND
6	Vdc IN	19	GND
7	Vdc IN	20	GND

8	N/A	21	GND
9	DC Enable in	22	GND
10	Vdet out(current)	23	GND
11	Vdet out(Temp.)	24	GND
12	N/A	25	GND
13	N/A		

MECHANICAL DRAWING, unit: mm