TRANSCOM

TAN005-020-50-49

PRE1_2025/FEB

0.5 ~ 2GHz 100W GaN High Power Solid State Power Amplifier Module

FEATURES

- Freq : 0.5 ~ 2 GHz Full Band
- P_{sat} : 49dBm, 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 (@+48V VDC, 25°C)

Parameter	Min	Typ	Max	Unit	Remark
Operating Frequency	0.5		2	GHz	
Power Output, Psat		+49		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	+46	+48	+50	Volt	

NOTE - .

Mechanical Specification

Parameter	Value	Units
Dimensions	205 x 145 x 28, typ.	mm
RF Connectors In/Out	Input: SMA 4 Holes Female ; Output: N Female	
DC & Control Connectors	D-Sub 15-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	

INTERFACE CONNECTORS

D-Sub, 15-Pin

D-Sub 7W2P(Male) Pin Assignment			
Pin		Pin	
A1	GND	3	DC Enable in
A2	Vdc IN	4	Vdet out(current)
1	N/A	5	Vdet out(Temp.)
2	N/A		

MECHANICAL DRAWING, unit: mm