

# DATASHEET - CPA50

rev C

C-band GaN Power Amplifier			min	typ	max	unit	note
1.0	General		The CPA50 is a C-band GaN Power Amplifier module designed for 6cm Ham Radio communication systems. The unit can include an optional output isolator to protect the output stage against excessive mismatch.				
1.1	RF frequency			5.76		GHz	
1.2	Linear Gain			40		dB	
1.3.1	RF output power, Psat	@ Vdd = 28V	50			W	
1.3.2			47			dBm	
1.4	In- and Output- impedance			50		Ohm	
1.5	Input return loss			13		dB	
1.6.1	Output return loss	no output isolator		10		dB	model CPA50
1.6.2		external isolator fitted		17		dB	model CPA50/I
1.7.1	Input drive level	at Psat		10		dBm	
1.7.2		no damage			14	dBm	
1.8	Supply voltage, Vdd		24	28	30	V	
1.9.1	Supply current, Idd	no RF		0.25		A	
1.9.2		@ Pout = 50W		3.7		A	
1.10	Electrical stability		unconditional			with matched ports	
1.11	Input connector		SMA/f				
1.12	Output connector		SMA/f				
1.13	DC connection		soldered to feedthrough cap				
1.14.1	Dimensions	no output isolator	128 x 38 x 20		mm		overall
1.14.2		external isolator fitted	163 x 38 x 20		mm		
1.15	Weight			190		g	
1.16	Heatsink requirement				0.2	K/W	use heatsink compound
1.17	Mounting holes		4 x M3			in 108 x 34 mm pattern	
1.18	Operational temperature range		-25		+55	°C	
1.19	Humidity protection		none				