



1860 Hartog Drive, San Jose, CA 95131
 TEL: 408-436-7723 FAX: 408-436-7698

CELLULAR BAND SINGLE CHANNEL POWER AMPLIFIER
10 WATTS CDMA

Parameter	Specifications
Frequency Range	824-849 Mhz, PART NUMBER: PDC-800-10
Pout, average	40 dBm (10 Watts)
RF Gain	45 \pm 1.0 dB
RF Gain flatness	\pm 0.5 dB
RF Gain vs. temp.	\pm 1.0 dB
Spectral Regrowth	-45 dBc @ Fc \pm 750 KHz at (1) 10W CDMA tone -60 dBc @ Fc \pm 1.98 MHz at (1) 10W CDMA tone
Pin	15 dBm max.
Noise Figure	8 dB max.
Second Harmonic	-30 dBc
Third Harmonic	-60 dBc
Input/Output Return Loss	15 dB min. (50 ohms)
Load Stability	Infinite VSWR, any phase
Output Protection	Isolator
DC Input Power	+27 Vdc \pm 5%
DC Current	3 A max at 10W Single Tone CDMA
Cooling	Conduction through base plate
Package Dimensions/ Outline	Package Style A-40
Environmental Conditions	
Operating Temperature (baseplate)	-30° C to + 80° C
Storage Temperature	-40° C to +85° C
Operating Humidity	20 to 80 % RH
Storage Humidity	5 to 95 % RH



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9 Pin Male D-sub Connector - Alarms and Controls

Pin Number	Function	Description	Remarks
1	GND	Ground	TTL Low (0V - 0.8V) TTL High (2.4V - 5.0V)
2	Over Power Alarm Output	If HPA current exceeds the required current for 20 W \pm 1 dB,(about 5A), the Over Power Alarm will occur and HPA will disable automatically (TTL High). The HPA will re-start automatically after 2-3 seconds.	
3	Device Failure Alarm	Alarm occurs if current drops below 1.0 A indicating a transistor failure (TTL High).	
4	VSWR Alarm	Alarm occurs when reflected power > 1 Watt (TTL High).	
5	Over Temperature Alarm Output	If heat sink temperature exceeds $85^{\circ} \pm 1^{\circ}\text{C}$, the High Temperature Alarm will occur and HPA will disable automatically (TTL High). When the HPA heat sink temperature returns to below 70°C the HPA will enable automatically and the Alarm signal will return to TTL Low.	
6	On/Off Switch	When TTL High (2.4V - 5.0V) enters into this Pin, HPA should be turned off. When TTL Low (0V - 0.8V) enters into this Pin, HPA should be turned on.	
7	N/C		
8	Power Detection	3 V nominal at 10 Watts CDMA	
9	N/C		

3 Pin Male D-sub Connector - Power

Pin Number	Description
1	+27 Vdc
2	Ground
3	N/C