

HD29485

**Linear Power Amplifier
DCS1800 Specifications**

Electrical Specifications

Items	Specifications	
Frequency Range	1805MHz~1880MHz	
Instantaneous Bandwidth	30MHz	
Output Power	+50dBm(100Watts)	
Inter Modulation Distortion	-60dBc Min.@ 6 Carriers, 600KHz Spacing	
RF Gain	50dB $\pm$ 1dB @ Frequency range	
Gain Variation Over Dynamic Range	$\pm$ 1dB Max. @ Po=+25dBm ~ +50dBm, +28Vdc, 25°	
Operating Voltage	+28Vdc $\pm$ 1.0Vdc	
RF Gain Variation over Temperature	$\pm$ 1dB @ temp range : -10° - +60°	
Gain Flatness	Within 30MHz	$\pm$ 0.5dB
Input Return Loss	-18dB Min.	
ALC Level	+50.5dBm $\pm$ 0.5dB / Total Power	
Output Protection	Mismatch Protected With Isolator (Over temp. & Over power, VSWR)	

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Harmonics (2nd)	-45dBc Min. (Main signal power to harmonics power)	
Current Consumption	25A Typ. @ +28V, +25°, Po=+50dBm	
	28A Typ. @ +28V, +25°, Po=OVP Point	
	1.5A Max. @ 'Disable' State	
ALC & Over Power	Operating Point	+50.5dBm ± 0.5dB
	Operating Range	Over 10dB
	Over Power	+51.0dBm ± 0.5dB
Operating Temperature	-10° ~ +60°	
Storage Temperature	-30° ~ +80°	
Relative Humidity	0 to 90% RH (non-condensing)	
Practical Use	GSM	
Cooling	External Heat sink + Forced Air	
RF Connector	Input : SMA Female, Output : N Female	
Power , Monitor Connector	- Power Connector: D-SUB (3W3 Male) - Control & Interface Connector: D-SUB (9 Pin Female) - Monitor Connector: D-SUB (15 Pin Female)	
MTBF	100,000hour	
Dimension	344.9 * 266.6 * 54 (W * D * H)	
Weight	7 kg	

HD29485

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Alarm Specification

No.	Parameter	Shutdown	Auto recovery	Remarks
1	High Temp.	O	O	Alarm : Over 85°. Shutdown : Over 90°. Auto Recovery : Temp Det. by Amp body under 70°.
2	Over PWR	O	X	Alarm $\geq 51\text{dBm} \pm 0.5\text{dB}$ Shutdown $\geq 51.5\text{dBm} \pm 0.5\text{dB}$
3	ALC	O	X	ALC Point : $50.5\text{dBm} \pm 0.5\text{dB}$ ALC Range : Over 10dB

HD29485

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Pin Description (D-sub 15Pin)

No.	Parameter	Remarks
1	Enable/Disable	Enable : TTL Low, Disable : Open
2	Reverse Det.	Range : 0 ~ 5VDC
3	VSWR Alarm	Alarm : TTL High, Normal : TTL Low
4	Over Power Alarm	Alarm : TTL High, Normal : TTL Low
5	High Temp. Alarm	Alarm : TTL High, Normal : TTL Low
6	Forward Det.	Range : 0 ~ 5VDC(3.7VDC@50dBm)
7	NC	
8	PA Status	Enable : TTL High, Disable : TTL Low
9	Temp. Monitor	Range : 0 ~ 5VDC(3.0VDC@30℃,0.01V/℃)
10	Input Monitor	Range : 0 ~ 5VDC
11	NC	
12	NC	
13	NC	
14	GND	
15	Reset	Reset : TTL High, Normal : TTL Low

HD29485

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Dimension

