

## Product Specification

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### LTE 1805-1880-45 LTE Power Amplifier 1805 -1880 MHz 45 Watts

#### Functions

Number	Description
1	ALC Point Control and Read
2	ALC on/Off Control and Read
3	PA Mute On/Off Control and Read
4	Digital Attenuator Control
5	Operating Temperature Monitor and Alarm
6	Output Power Monitor
7	Reverse Power Monitor and Alarm
8	DC Current Monitor and Alarm
9	Protected Against High Reflected Power

#### Environmental Specifications

Parameter	Specification
Max Base Plate Operating Temp.	0° to +85° C Shutdown @ 90° C
Relative Humidity	5% ~ 96 %
Atmospheric Pressure	70 kPa ~ 106 kPa
Cooling	Not provided, User Supplied

## Electrical Specifications

Parameter	Specification
Frequency	1805 – 1880 MHz
Signal Type	LTE, PAR 9.8 dB @ 0.01%
Nominal Output Power	45 W
Nominal Gain	51 dB
ACLR	≤ -45dBc
EVM (Max)	< 8% @ Specified Output Power
Gain w/ ALC off +/- 1db	51 ± 1.5 dB [Room Temperature/ Value of attenuator 8.5 dB] 51 ± 2 dB [Low and High Temperature/ Value of attenuator 8.5 dB]
Input Return Loss	18 dB
Output Return Loss	18 dB
Tx ALC control range vs. Tx input level change, Min	16 dB [Nominal Input +/- 8 dB]
ALC Set Range	16 dB [46.5 ~ 31.5 dBm]
ALC Set Step	0.5 dB
ALC Control Accuracy	± 1dB
Attenuator Set Range [ALC Off]	31 dB
Attenuator Set Step [ALC Off]	0.25 dB
Max Input Level, No Damage and Degradation	0 dBm [Adjust the attenuator to maintain output power]
Noise Figure [ALC Off]	≤ 10 dB
DC Power	+28V
Efficiency	≥ 25% @ 45 W
Output Load Mismatch Tolerance	Isolator Protected
Power Consumption when Muted	< 5 W
Forward Power Monitor	Range: 30 dB, 50 dBm ~ 21 dBm Resolution: 0.1 dBm Accuracy: ± 2 dB
Reverse Power Monitor	Range: 30 dB, 50 dBm ~ 21 dBm Resolution: 0.1 dBm Accuracy: ± 2 dB
DC Current Monitor	Range: 0 - 15 A Resolution: 0.1 A Accuracy: ± 5%

Temperature Monitor	Range: -40° C ~ +105° C Resolution: 1° C Accuracy: ±3° C
RF Connectors	SMA Female
Power Connector	M3 Screw Terminal
Control Connector	4 Position 2.5 mm Pitch Header Mates With JST XHP-4
Dimensions	See Attached Drawing (Dimensions are in mm)

### Control Pins

Pin Number	Description
1	GND
2	RS484_A
3	RS485_B
4	NC

### Outline Drawing

