

RFcore Co.,Ltd

5.7~5.9 GHz 20 W
Power Amplifier

RCA5759H43A

- **Size 135X65X19 mm³**

Preliminary Specifications

5.7 ~ 5.9 GHz 20 W Power Amplifier

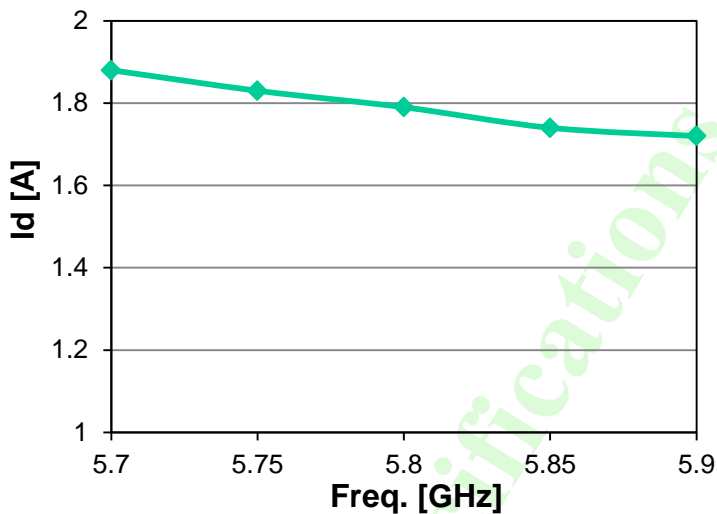
Model Name : RCA5759H43A

| Parameter | Specification | Remark |
|--|--|----------------------------------|
| Frequency Range | 5.7 to 5.9 GHz (Bandwidth : 0.2 GHz) | |
| CW Power Output Psat | 43dBm typ., 42dBm min | @ 30 °C case temperature |
| Small Signal Average Gain | 47 dB ± 2 dB | @ -15dBm input, 30 °C case temp. |
| Large Signal Average Gain | 43 dB ± 2 dB | @ 0dBm input, 30 °C case temp. |
| Large Signal Gain Flatness | Peak to Peak 2 dB | @ 0dBm input, 30 °C case temp. |
| Maximum Output load condition | survive with open & short at output connector | Isolator included |
| Input / Output VSWR | Less than 1.5 :1 | |
| Maximum Input Power | +7 dBm | |
| DC Input (Vcc) | 28V | |
| DC Current | 1.6 A Typical, 2.3 A MAX @ 42 dBm Idq : 0.5 A MAX | |
| SIZE | 135 X 65 X 19 mm ³ | |
| Weight | 340 g Typical, 400 g MAX | |
| Operating case Temperature | -20 °C ~ + 60 °C | |
| Storage Temperature | -40 °C ~ +90 °C | |
| I/O and DC Pin description (D-sub 9 pin Male) | 1. Enable (Active low, 0~0.8V : low, 4~5V : high) | |
| | 2. Forward Power Monitor | |
| | 3. NC | |
| | 4 . Reverse Power Detector | |
| | 5. Temperature Monitor, Monitor Voltage is $V = 0.01V * T (^{\circ}C) + 0.5V$ | |
| | 6,7 : Vcc | |
| | 8,9 : GND | |
| RF I/O | 1. RF IN SMA Female | |
| | 2. RF OUT SMA Female | |

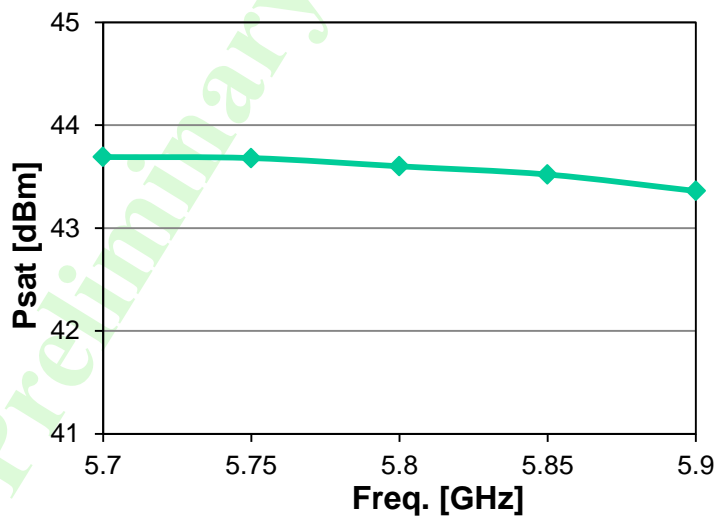
※ Enable Pin (1) is normally pulled up with a 10kohms resistor .

Typical Performance Curve

Current Consumption at 42dBm output



Saturated Output Power



Mechanical Drawing

(D x W x H) : 135 x 65 x 19 mm³

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