

# Band-Specific High Power Amplifier

Product Name : RCA1900H50CW

Doc. Name : General Spec.

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## General Specification for RCA1900H50CW

1

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| Created                                    | Printed  | Document Number | Revision | Manufacturer          |
|--|----------|-----------------|----------|-----------------------|
| 2011/12/12                                 | 2015/9/8 |                 | B        | <b>RFcore co.,Ltd</b> |
| File : RCA1900H50CW_revB General Spec.docx |          |                 |          |                       |

*The Specifications is subject to change before finalization*

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<http://www.rfcore.com>

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| ELECTRICAL SPECIFICATIONS            |  | @ 50 Ohms load, 27 Vdc, Tc ≅ 35 °C  |
|--------------------------------------|--|---|
| Parameter                            | Specification  | Remark  |
| Frequency Range                      | 1920 ~ 1980 MHz  |   |
| Saturated Output Power               | 100 W min.   |   |
| Small Signal Gain @ Center Frequency | 45 ± 0.5 dB  | Input = -15dBm  |
| Gain Flatness                        | Peak to Peak 2.0 dB  | Input = -15dBm  |
| Input VSWR                           | Less than 1.5 : 1  |   |
| Output VSWR                          | Less than 1.5 : 1  |   |
| Maximum Input Power for no damage    | 7 dBm  |   |
| DC Input Current                     | 12 A max., 11 A typ.   | @ Pout = 100W   |
| DC Input Voltage                     | +27 ± 1.0 Vdc  |   |
| I/O Map                              | <ol style="list-style-type: none"> <li>1. GND</li> <li>2. Do not connect</li> <li>3. VSWR Fail Alarm</li> <li>4. Temperature Monitor</li> <li>5. Over Temp Alarm</li> <li>6. Enable (Active Low)</li> <li>7. Do not connect</li> <li>8. Forward Power Monitor</li> <li>9. Reflected Power Monitor</li> </ol> | <p>Alarm : reflected power = 25~50W @ Fcenter</p> <p>VT ≅ 3.6-0.022*(T-30) ± 0.1V<br/>T is Case Temperature in °C</p> <p>Alarm &amp; Shutdown : High(5V) @ case temp. 85 ± 5°C<br/>Auto Restart : LOW(0V) @ case temp. 65 ± 5°C</p> <p>pulled-up@5V with 10KΩ</p> <p>4V±0.1V@50dBm,<br/>Log slope ≅ 0.1V/dB<br/>Vpin8 = 4-(50-Pout)x0.1±0.1V<br/>Vpin9 is output(voltage) of diode detector. It has non-log slope characteristic.<br/>PA shutdown when Vpin9 reach 1.4 ± 0.1Vdc @ Fcenter</p> |

\* Temp. Monitor(Vpin4) is not a specification. It is for reference value only.

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## ENVIRONMENTAL SPECIFICATIONS

| Parameter                  | Specification | Remark |
|----------------------------|---------------|--------|
| Operating Case Temperature | -20 ~ 70 °C   |        |
| Storage Temperature        | -40 ~ 85 °C   |        |

## MECHANICAL SPECIFICATIONS

| Parameter           | Specification                | Remark |
|---------------------|------------------------------|--------|
| Dimension           | 170 x 135 x 25 mm            |        |
| RF Input Connector  | SMA – Female                 |        |
| RF Output Connector | SMA – Female                 |        |
| DC Power Connector  | 3W3P(A1:27V, A2:GND, A3:N.C) |        |
| Interface Connector | D-Sub 9Pin Male              |        |

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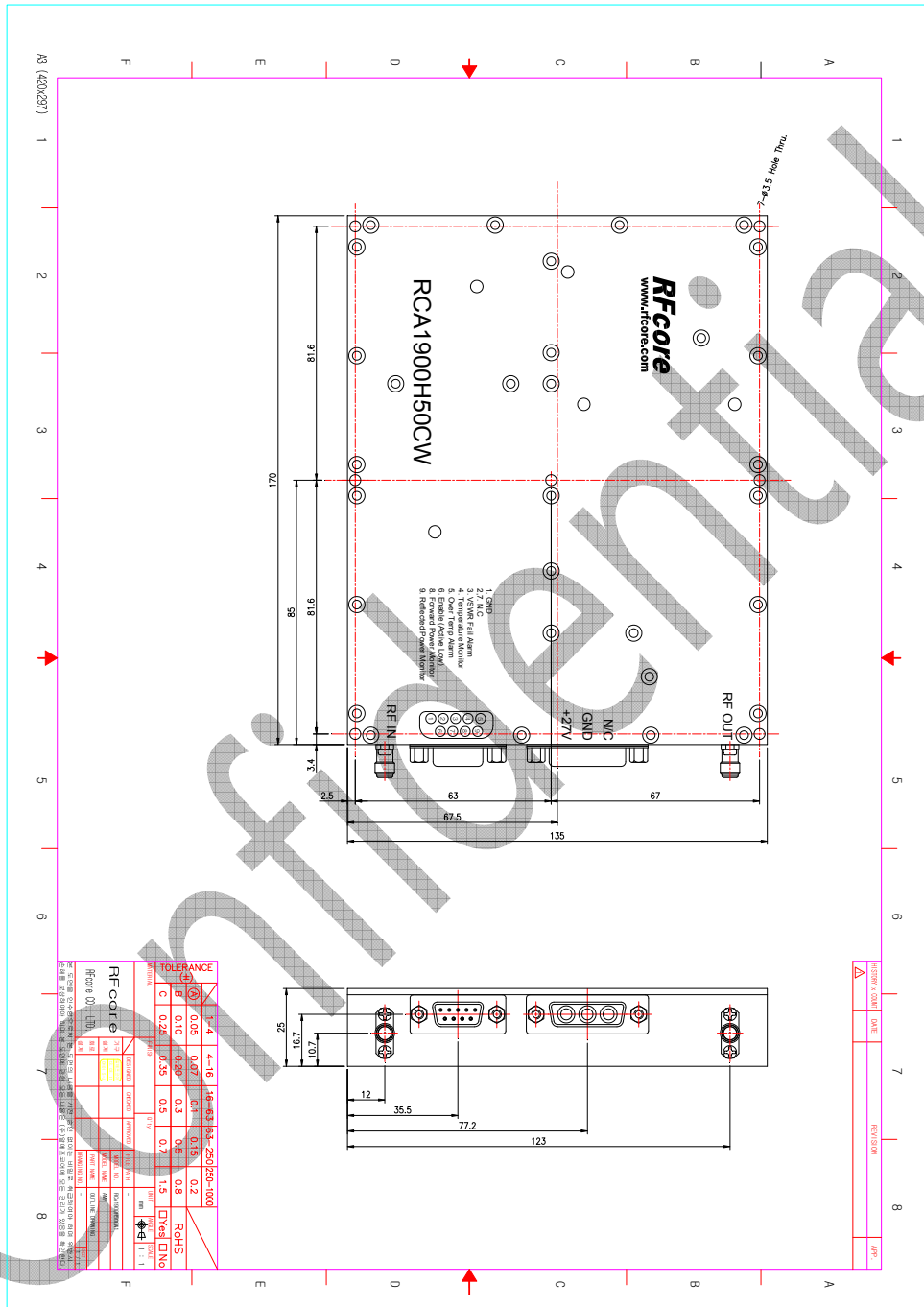
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## MECHANICAL DRAWING



DRAWING REFERNECE: This is subject to change without notice.

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