

# Rack Mountable System Amplifier

Product Name : RCA0525U52

Doc. Name : Preliminary Short Spec.

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| <p><b>Preliminary Short Specification</b><br/>for<br/><b>RCA0525U52</b></p> |
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| 2014/8/28                         | 2014/8/29 |                 | B        | <b>RFcore co.,Ltd</b> |
| File : RCA0525U52 Short Spec.docx |           |                 |          |                       |

*The Specifications is subject to change before finalization*

Customer Service: Tel. 82-31-708-7575

Email: [sales@rfcore.com](mailto:sales@rfcore.com)

<http://www.rfcore.com>

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| ELECTRICAL SPECIFICATIONS                | @50Ω Load, Ta ≅ 25°C, 220VAC             |   |
|--|--|---|
| Parameter                                | Specification                            | Remark  |
| Frequency Range                          | 500 ~ 2500 MHz                           |   |
| Saturated Output Power                   | 150 Watt typ. (CW)<br>125 Watt min. (CW) | @ 50 ohms load, CW  |
| Gain                                     | 56 dB min.                               | Input level = -15 dBm   |
| Flatness                                 | Peak to peak 6 dB max.                   | Input level = -15 dBm,  |
| Gain Adjustment Range                    | 30 dB with 0, 0.5, 1, 2, 3, .....<br>30  | Available both manual and remote control  |
| Harmonics                                | Less than -10 dBc                        | @ 125 Watts   |
| Spurious                                 | Less than -50 dBc                        | In band   |
| Input VSWR                               | 2 : 1 max.                               |   |
| Maximum Load VSWR for amplifier survival | Infinite                                 | The gain of amplifier should be reduced at a certain ratio between 3.5 and infinite VSWR. |
| Input / Output Impedance                 | 50 Ohms nominal                          |   |
| Input Power for rated output power       | 0dBm                                     |   |
| Maximum Input Power for no damage        | 10 dBm                                   |   |
| Primary Supply Voltage                   | 220VAC                                   | 176 ~ 264VAC / 47 ~ 63 Hz<br>Single phase   |
| Power Consumption                        | 1000 Watts typ.<br>1200 Watts max.       | P <sub>OUT</sub> = 125W CW  |

| ENVIRONMENTAL SPECIFICATIONS  |               |        |
|-------------------------------|---------------|--------|
| Parameter                     | Specification | Remark |
| Operating Ambient Temperature | -10 ~ 50 °C   |        |
| Storage Temperature           | -40 ~ 85 °C   |        |

|                                   |           |                 |          |                       |
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## MECHANICAL SPECIFICATIONS

| Parameter                | Specification  | Remark                       |
|--------------------------|--|------------------------------|
| Physical Dimension       | 19"(W) x 5.25"(H) x 20"(D)   |                              |
| Weight                   | Less than 66 lb ( 30 kg )  |                              |
| Handles                  | Two handles  | On rear panel                |
| RF Input Connector       | N – Female   | On rear panel                |
| RF Output Connector      | N – Female   | On rear panel                |
| Remote Control Connector | Ethernet(Military RJ45)  | On rear panel                |
| AC INLET                 | IEC-60320 C14  | On rear panel                |
| Main Switch              | Supply voltage on/off  | On rear panel                |
| Standby button           | RF input signal on/off   | On front panel               |
| Cooling                  | Forced air from front to back<br>Fans to be activated above a defined temp. threshold only(switch fans between full or minimum current when under threshold) | Fans should be in rear panel |

## SELF PROTECTIONS

See the Note

| Parameter                     | Value                  |     |     |       | Remark              |           |             |              |
|-------------------------------|------------------------|-----|-----|-------|---------------------|-----------|-------------|--------------|
|                               | Min                    | Typ | Max | Unit  | Alarm <sup>6)</sup> | Shut-down | Factory set | Gain reduced |
| Input Overdrive <sup>1)</sup> |                        |     | +5  | dBm   | √                   |           | √           | √            |
| Load VSWR <sup>2)</sup>       | 3.5                    |     | ∞   | ratio | √                   |           | √           | √            |
| Over Power <sup>3)</sup>      | 54                     |     | 56  | dBm   | √                   | √         | √           |              |
| DC Current <sup>4)</sup>      | TBD                    |     | TBD | A     | √                   | √         | √           |              |
| Thermal                       | Overload <sup>3)</sup> | 75  | 90  | °C    | √                   | √         | √           |              |
|                               | Recovery <sup>4)</sup> | 55  | 70  | °C    |                     |           |             |              |

Note1 :

- 1) If the input level is more than threshold, the gain of amplifier should be reduced.
- 2)  $\geq$  Load VSWR over 3.5 : 1 within few usec From a certain ratio of between VSWR 3.5 and infinite VSWR.
- 3) If output power monitor is more than threshold, PA module should be shutdown.

|                                   |           |                 |          |                       |
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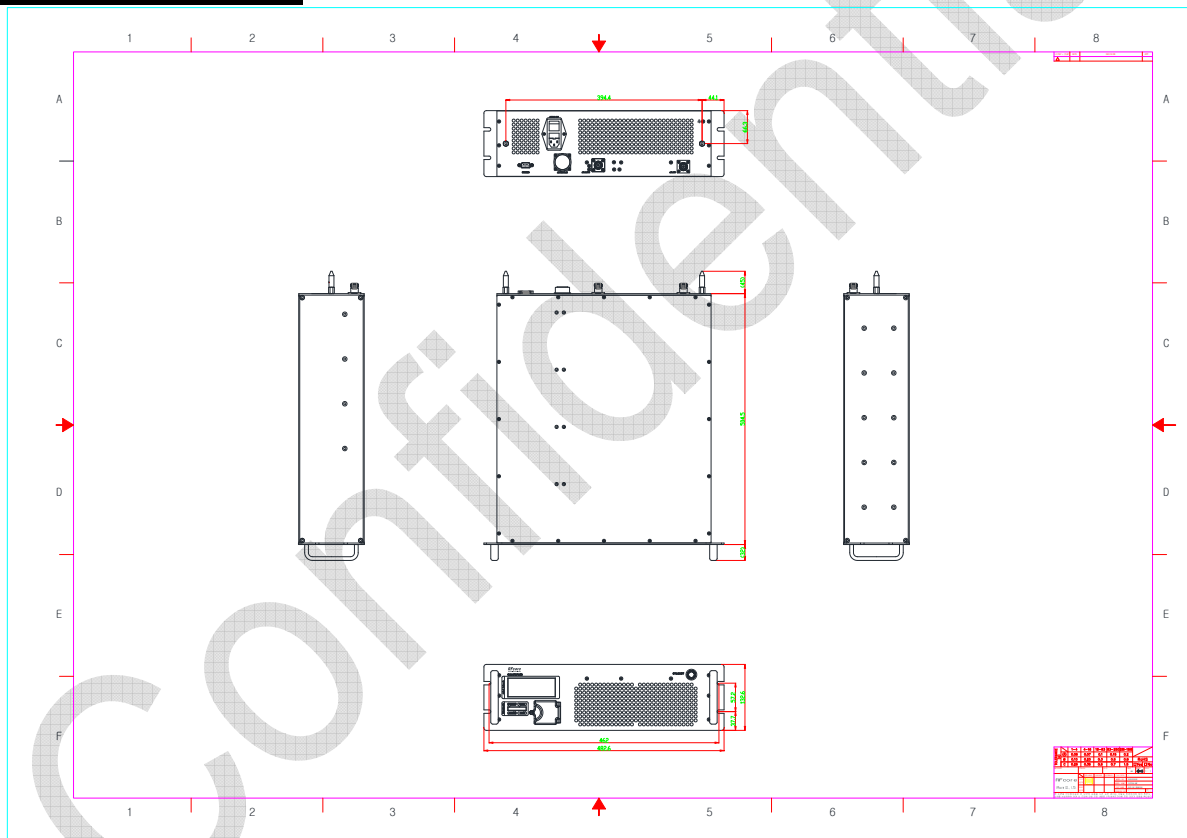
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- 4) If DC Current monitor is more than threshold, PA module should be shutdown.
- 5) If Temperature monitor is less than threshold, PA module should be Auto-recovery.  
(Temperature monitor: At the hottest point on the baseplate.)
- 6) Alarm will be reported as follows;
  - LCD Display
  - RS-232, Ethernet Interface.

## MECHANICAL DRAWING



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