

# Band-Specific High Power Amplifier

Product Name: RCA1822H48B

Doc. Name: Preliminary Short Spec.

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<p style="text-align: center;"><b>Preliminary Short Specification</b> for <b>RCA1822H48B</b></p>
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Created	Printed	Document Number	Revision	Manufacturer
2015/4/22	2017/2/6		C	<b>RFcore co.,Ltd</b>
File : RCA1822H48B ShortSpec.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, 28 Vdc, Tc ≅ 35 °C
Parameter	Specification	Remark
Frequency Range	1800 ~ 2170 MHz	
Rated Output Power	48 dBm min. @ CW	37 dBm min. @ WCDMA 3.84MHz
Gain	37 ± 2.0 dB	Pin = -10 dBm to 8 dBm @ CW, In band
Gain Flatness	4.0 dB p-p	In band
Gain Stability	± 2.0 dB	Over Temp.
Input Power for rated output power	11 dBm typ. @ CW	0 dBm @ WCDMA 3.84 MHz
Maximum input power for no damage	20 dBm @ CW	
ACLR ± 5 MHz for 1FA	40 dBc min.	Single carrier WCDMA, 3GPP Test Model 1, 64DPCH, PAR = 7.5 dB @ 0.01% Probability on CCDF
ACLR ± 10 MHz for 1FA	50 dBc min.	
ACLR ± 5 MHz for 2FA	25 dBc min.	Multi-carrier WCDMA, 3GPP Test Model 1, 64DPCH, PAR = 9.8 dB @ 0.01% Probability on CCDF
ACLR ± 10 MHz for 2FA	35 dBc min.	
Input VSWR	Less than 1.5 : 1	
Output VSWR	Less than 1.5 : 1	Built in Isolator
Maximum load VSWR for amplifier survival	Infinite, all phase	
DC Input Voltage for 28VDC	28 ± 1 Vdc	
DC Current Consumption for 28VDC	8 A max. 6A typ.	

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Interface Pin Description		
Connector	Description	Specification
D-Sub 9Pin Male	1. Temperature Monitor	VT= 10(mV) * Tc(°C) + 500(mV), Tc = Case Temperature ± 5°C
	2. Forward Power Monitor	
	3. GND	
	4. Reflected Power Monitor	
	5. N.C	
	6. Vcc	
	7. Vcc	
	8. GND	
	9. Enable (Active low)	pulled-up@5V with 10KΩ

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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	135 x 100 x 25 mm	
Weight	Less than 630 g	
RF Input / Output Connector	SMA – Female(2H)	
I/O Interface connector	D-SUB 9pin male	

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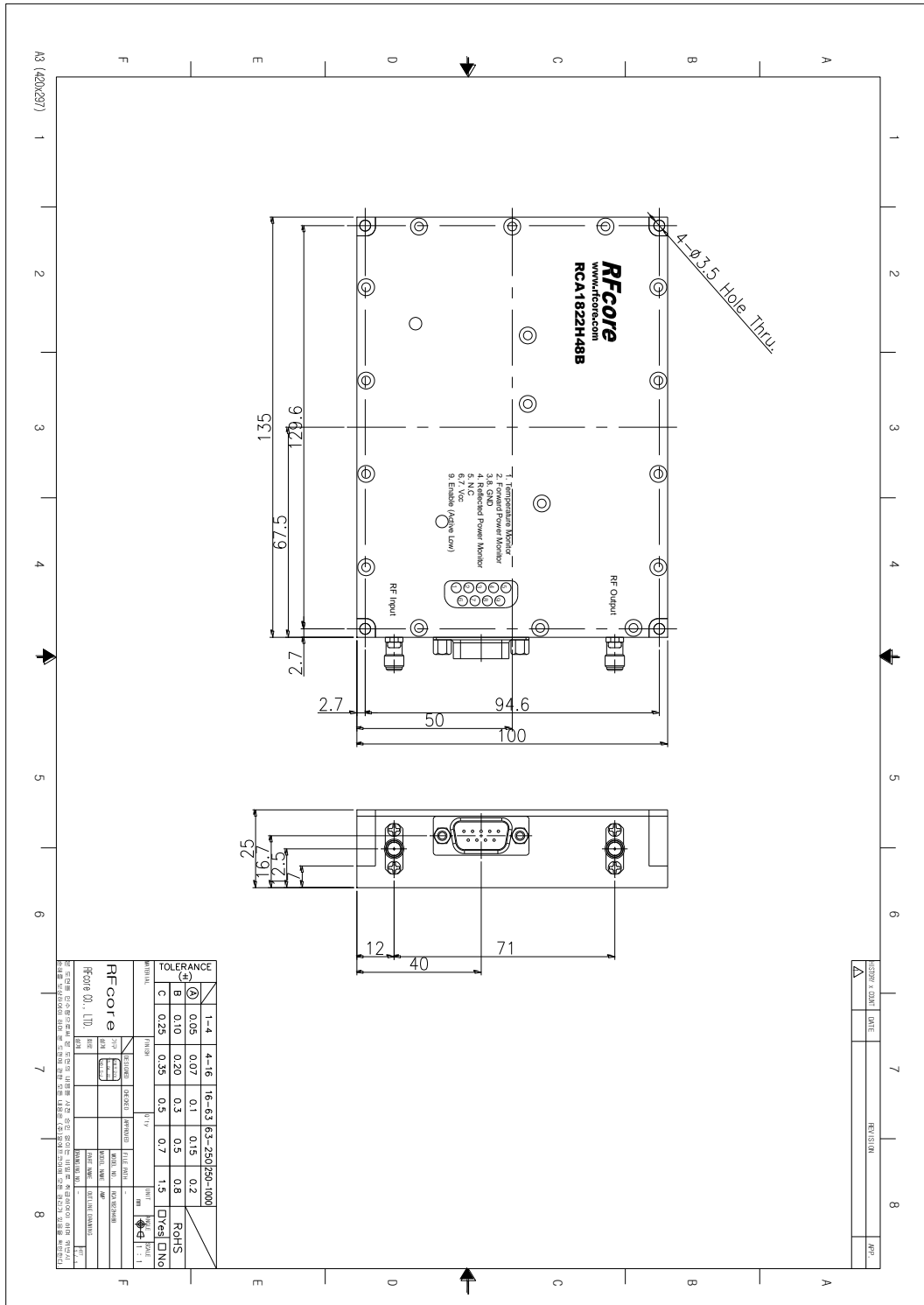
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## MECHANICAL DRAWING



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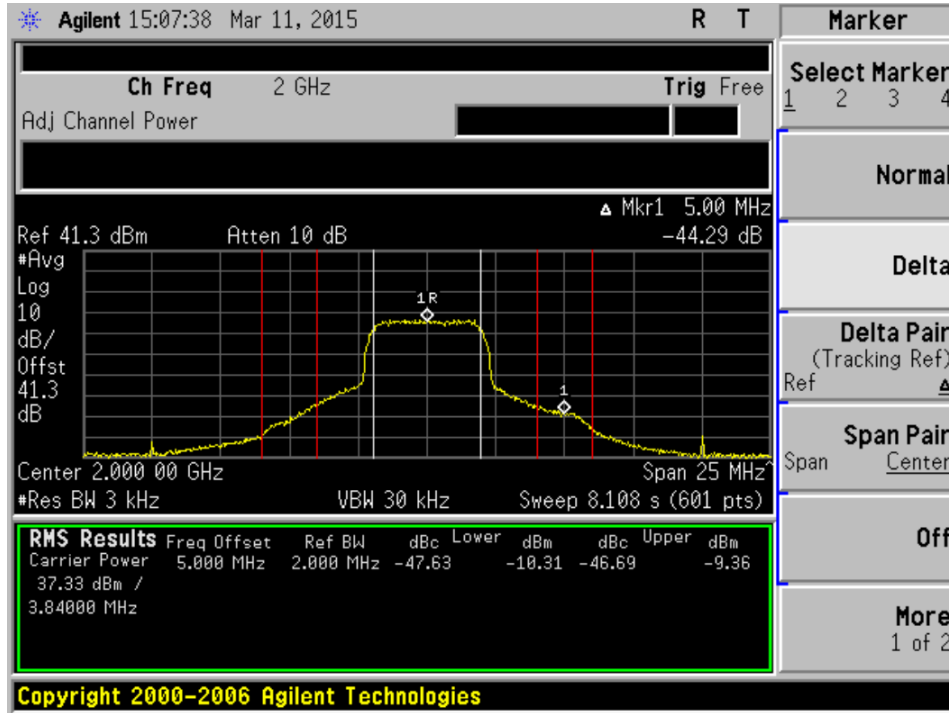
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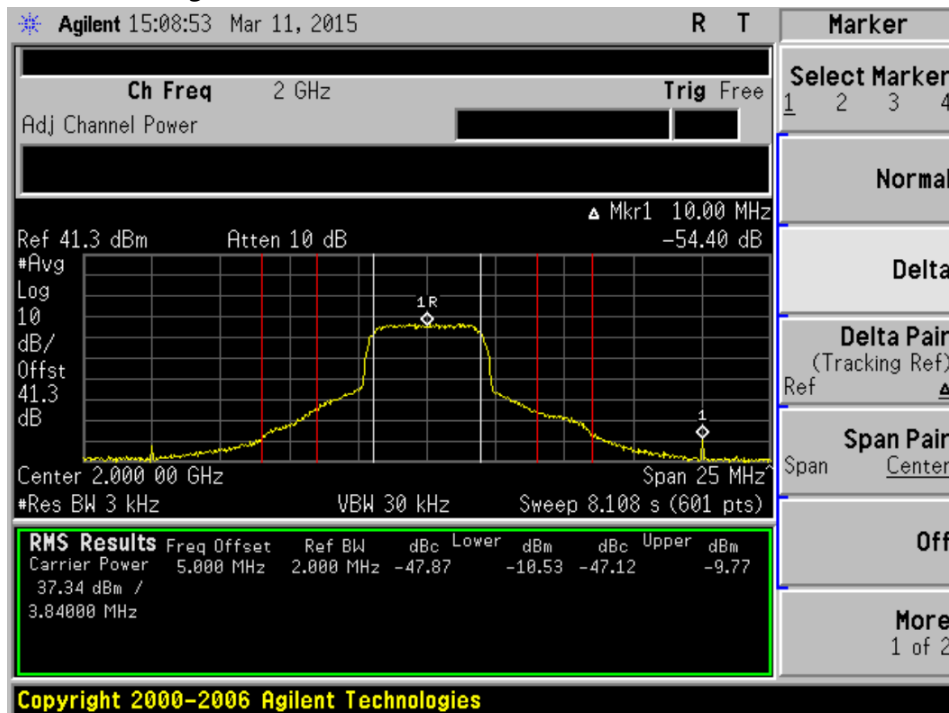
## RF Performance

### ACLR $\pm$ 5 MHz for Single Carrier



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### ACLR $\pm$ 10 MHz for Single Carrier



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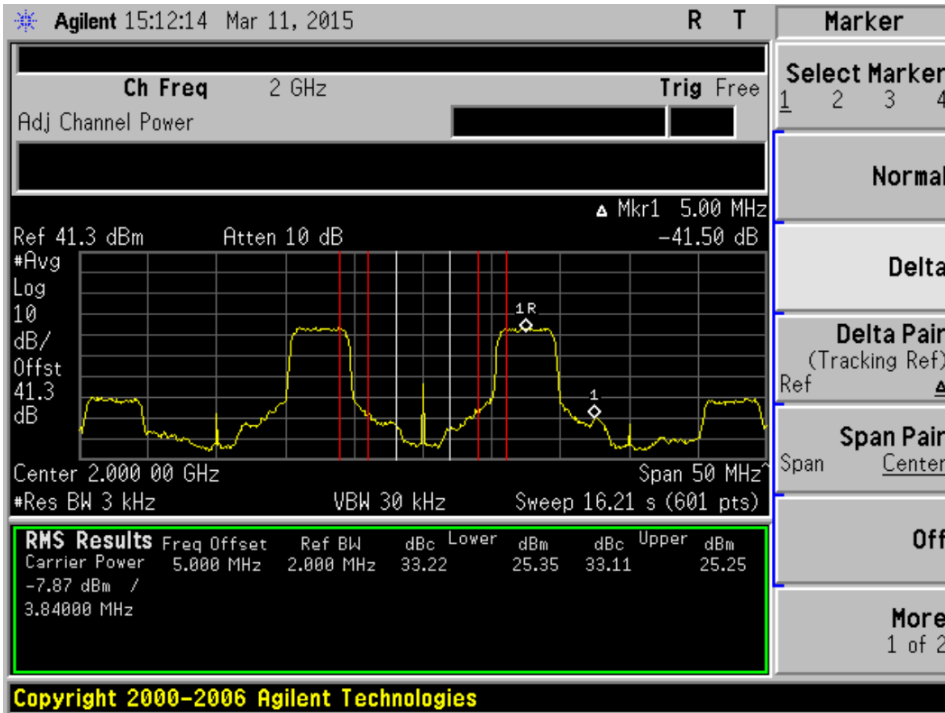
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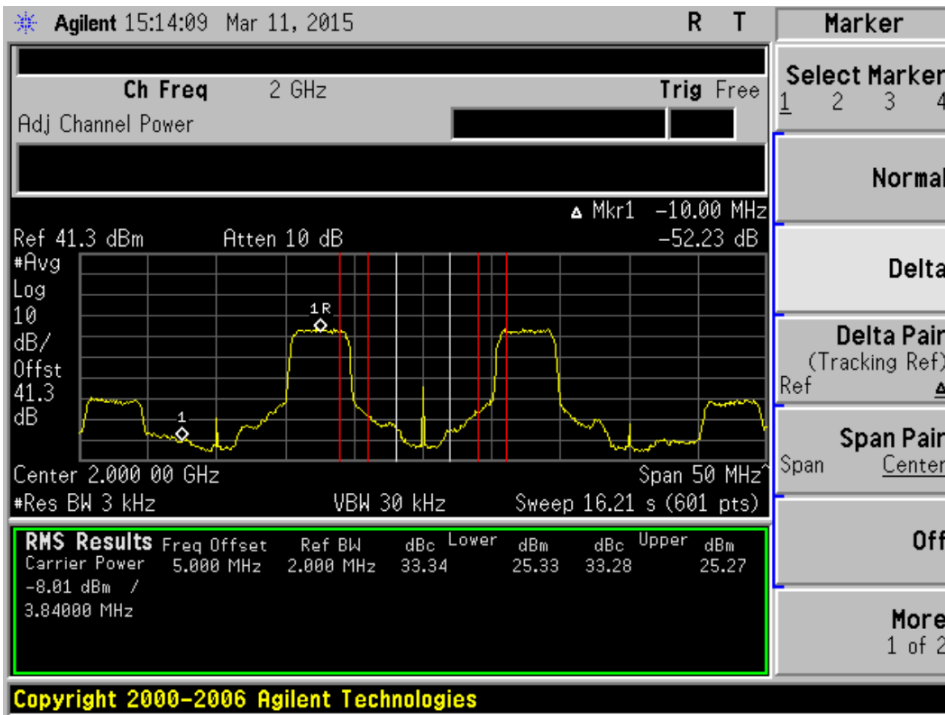
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## ACLR ± 5 MHz for Multi Carrier



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## ACLR ± 10 MHz for Multi Carrier



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