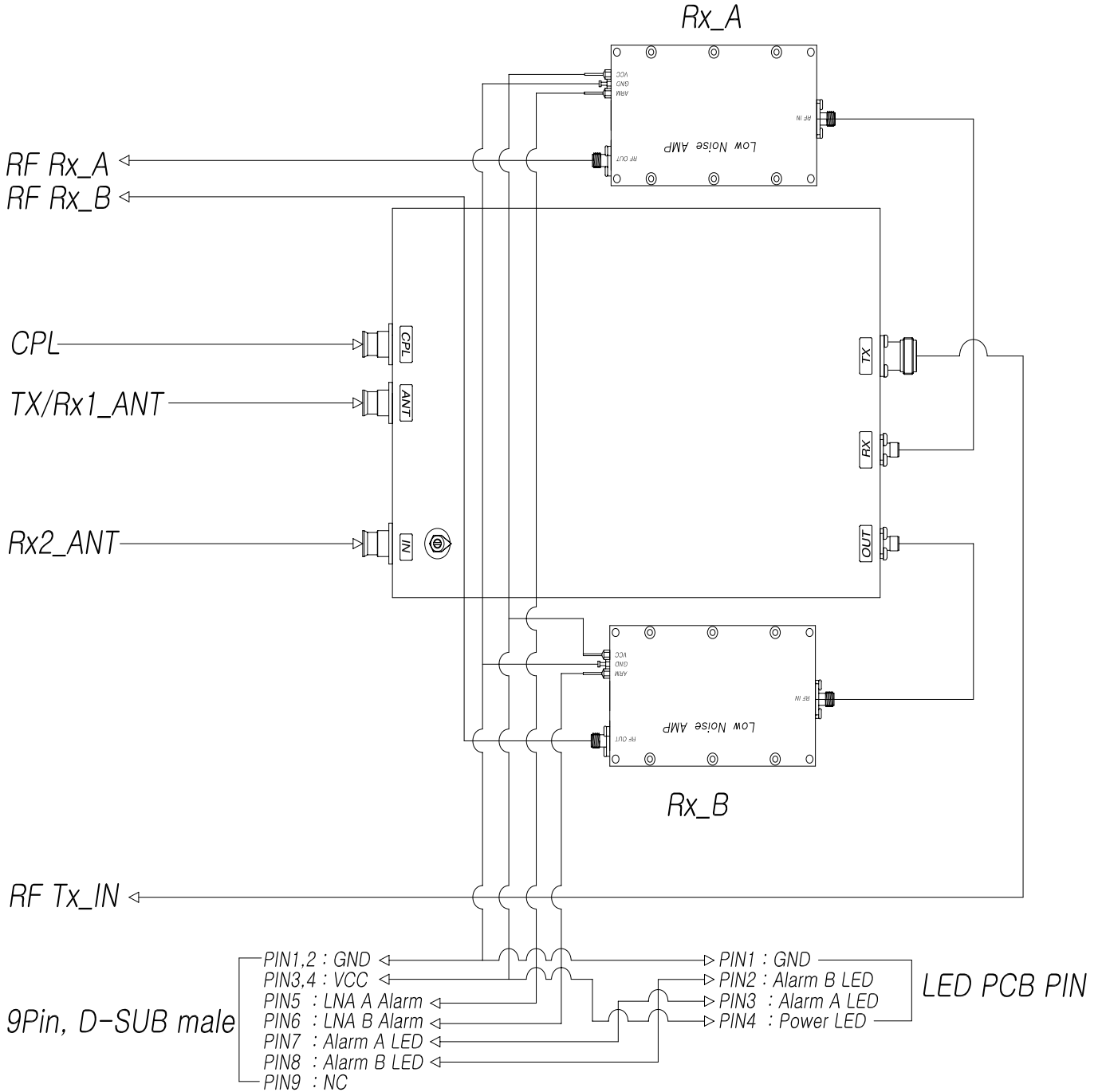


► FEU for Small BTS (Cellular Band) _ Duplexer & Rx BPF Module

1. Block Diagram



2.1. Specification

No.	Parameter	Specification			Remarks
1	Frequency (MHz)	RX1	RX2	TX	
		824MHz ~ 849MHz	824MHz ~ 849MHz	869MHz ~ 894MHz	
2	Band Width	25MHz	25MHz	25MHz	
3	Insertion Loss	-	-	1.25 dB Max	
4	Gain	24±1dB	24±1dB	-	
5	VSWR	1.3:1	1.3:1	1.3:1	
6	Flatness	1.0dB	1.0dB	0.5dB	
7	Noise figure(Max)	2.1	2.1	-	
8	3 rd order Intercept Point(Min)	26dBm Max	26dBm Max	-	Output power : 0dBm/tone
9	Total Current	1A			12V
10	Fault Indicator	Normal	Low	Low	Pin7(Rx1),Pin8(Rx2) Open Collector Type
		Abnormal	High	High	
11	Tx ↔ Rx Isolation	100dBc	100dBc	100dBc	
12	Coupling Value	-	-	30±1dB	
13	Impedance	50Ω			
14	Operating Temp.	-30℃ ~ +60℃			
15	Size	288 X 360.47 X 69			Unit : mm

- PIN

Connector	No.	Signal Description
9Pin, D-SUB male	1	GND
	2	GND
	3	Vcc
	4	Vcc
	5	LNA A Alarm
	6	LNA B Alarm
	7	Alarm A LED
	8	Alarm B LED
	9	NC

Connector	No.	Signal Description
Molex 5267-4A	1	GND
	2	Alarm B LED
	3	Alarm A LED
	4	Power LED

2.2. Duplexer + BPF (Model No : WT-DB881.5-25NS-ESR)

No.	Parameter	Unit	Specification		
			RX 2 (BPF)	RX 1	TX
1	Operating Frequency	MHz	824MHz ~ 849MHz	824MHz ~ 849MHz	869MHz ~ 894MHz
2	Band Width	MHz	25	25	25
3	Insertion Loss	dB	0.9 max	0.9 max	0.9 max
4	Passband Ripple	dB	0.4 max	0.4 max	0.4 max
5	Return Loss	dB	18 min	18 min	18 min
6	Power Handling	W	10 max	10 max	100 max
7	Isolation	dBc	100 min	100 min	100 min
8	Operating Temp	°C	-30 ~ +60		
9	Impedance	Ω	50		

2.3. LNA (Model No : 824 ~ 849MHz LNA)

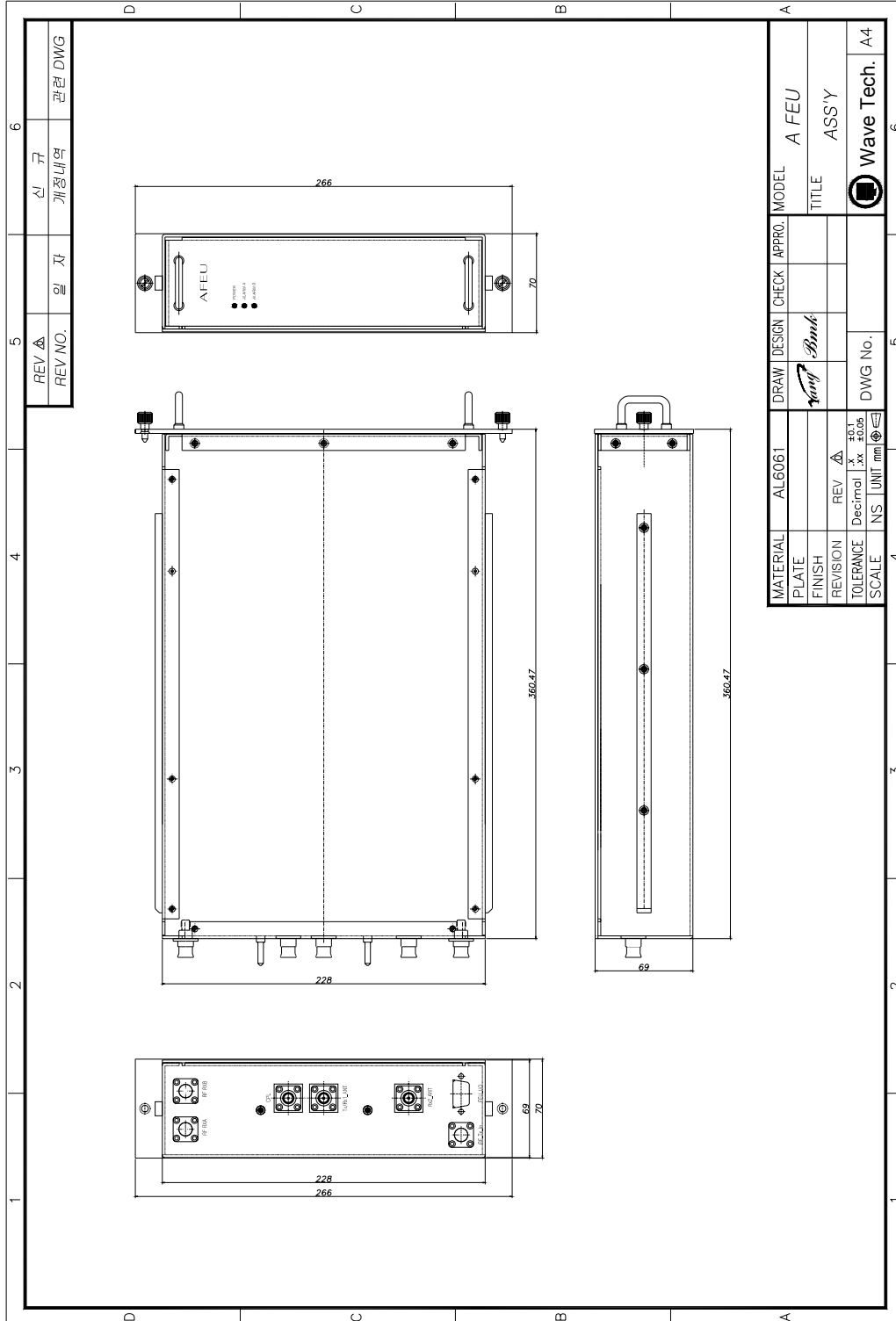
NO.	Parameter	Unit	Specification	Remarks
1	Frequency Range	MHz	824 ~ 849	
2	Gain	MHz	25.0±1.0dB	
3	Gain Flatness	dB	1.0dB max	Peak TO Peak
4	Noise Figure	dB	1.2dB max	
5	3 rd Order Intercept Point	dB	27.0dBm max	@Output power:+0dBm/tone
6	In/Out VSWR	dBc	1.2:1	
7	In/Out Impedance	Ω	50 ohm	
8	DC Input Voltage	V	9.0V	
9	Total Current	mA	450 mA	
10	Alarm Out	Normal	Low	Open Collector Type
		Abnormal	High	
11	Rf Connector		SMA Female	
12	BIAS Connector		EMI Filter	
13	Operating Temperature		-30℃ ~ +60℃	
14	Dimension	mm	105x60x17 mm	

2.4. Parts

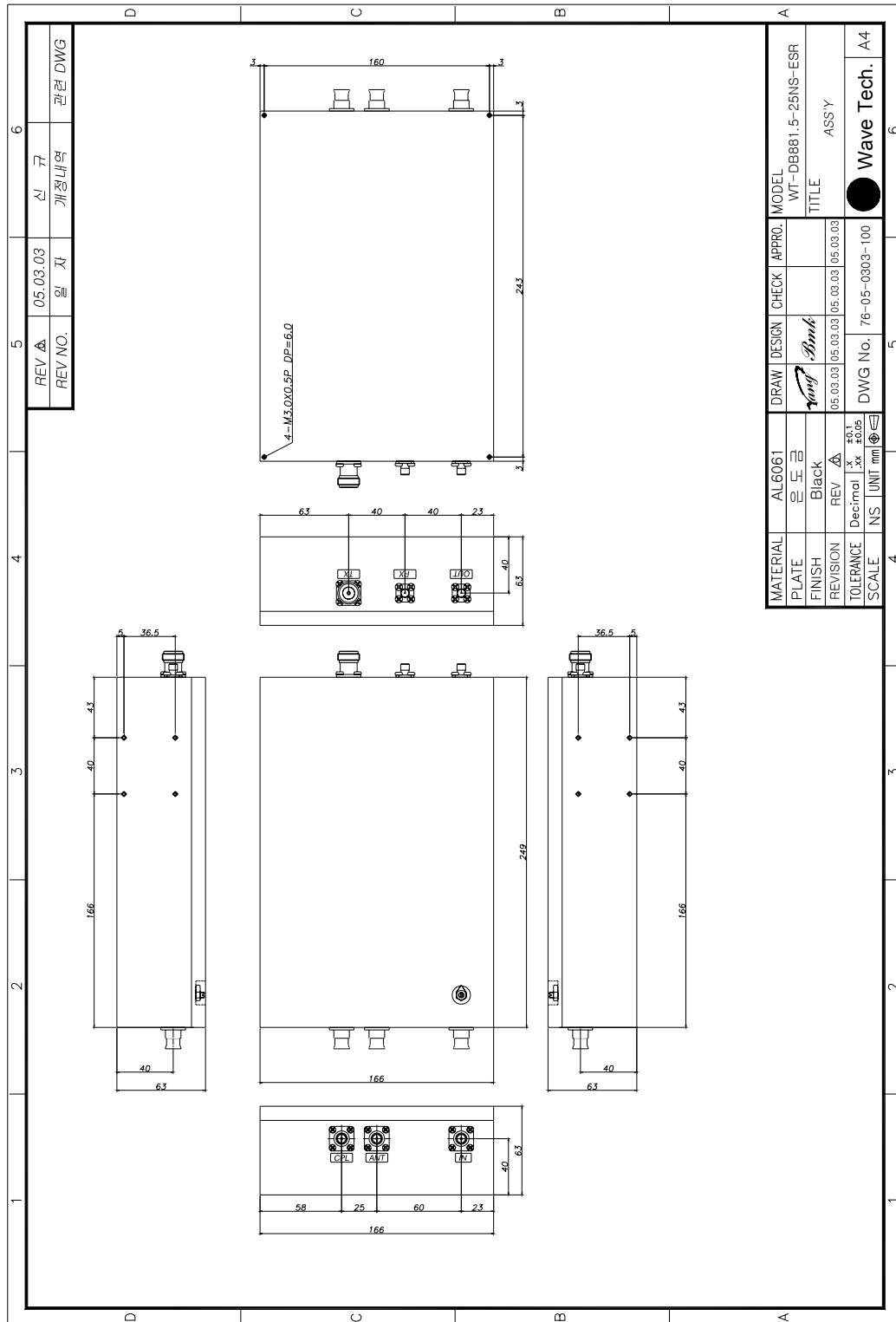
NO.	Parts	Model	Q'ty	Remark
1	Duplexer + BPF	WT-DB881.5-25NS-ESR	1	WaveTech
2	LNA		2	Kortcom
3	Cable Ass'y	N(M) to SMA(M)	1	Alpha Tech
4	Cable Ass'y	SMA(M) to SMA(M)-1	1	"
5	Cable Ass'y	SMA(M) to SMA(M)-2	1	"
6	Cable Ass'y	SMA(M) to SMA(M)-1	1	"
7	Cable Ass'y	SMA(M) to SMA(M)-2	1	"
8	Unit	AFEU MODULE	1	M.I. Tech

3. Drawing

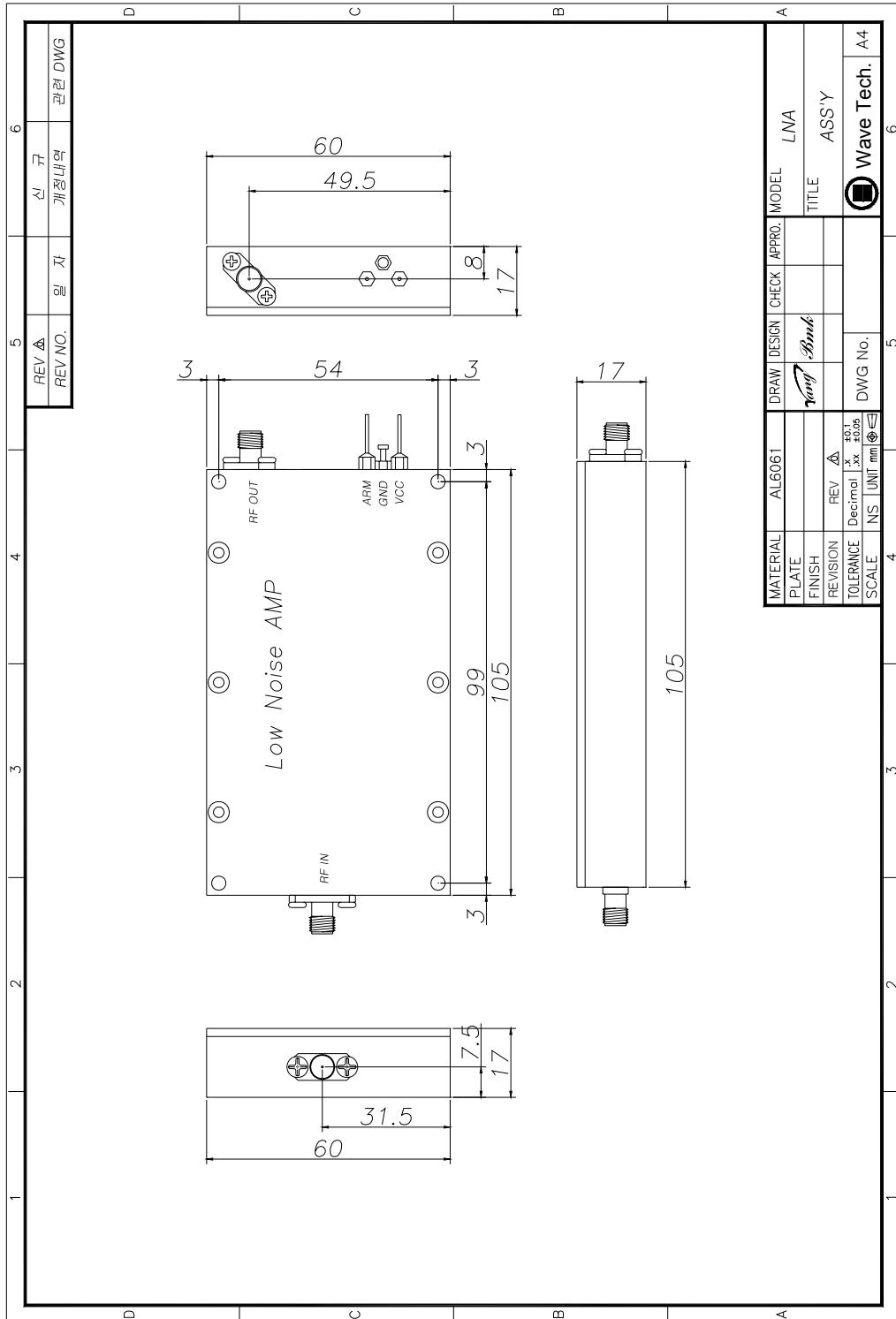
3.1. Module Drawing



3.2. DUP+BPF Drawing

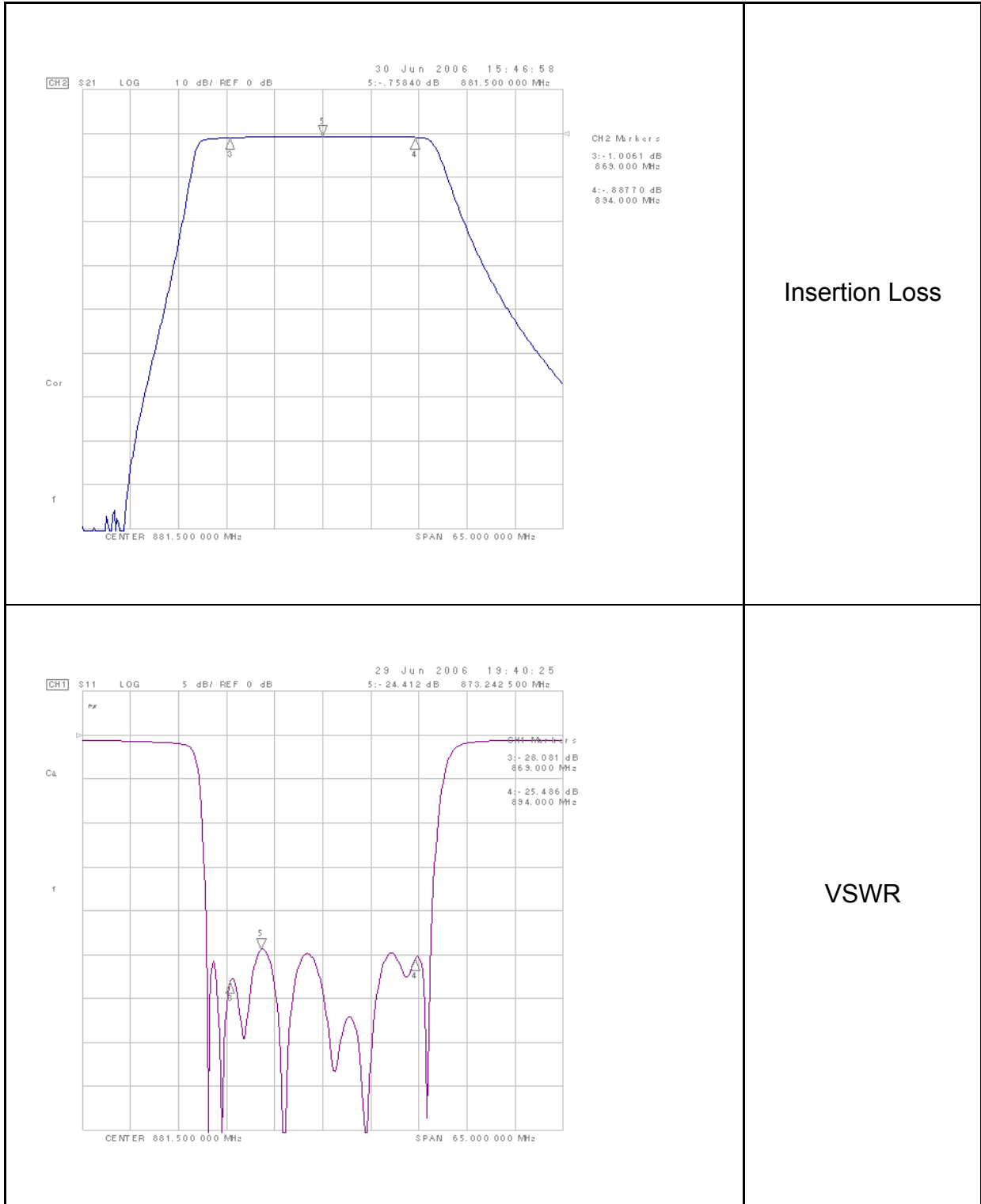


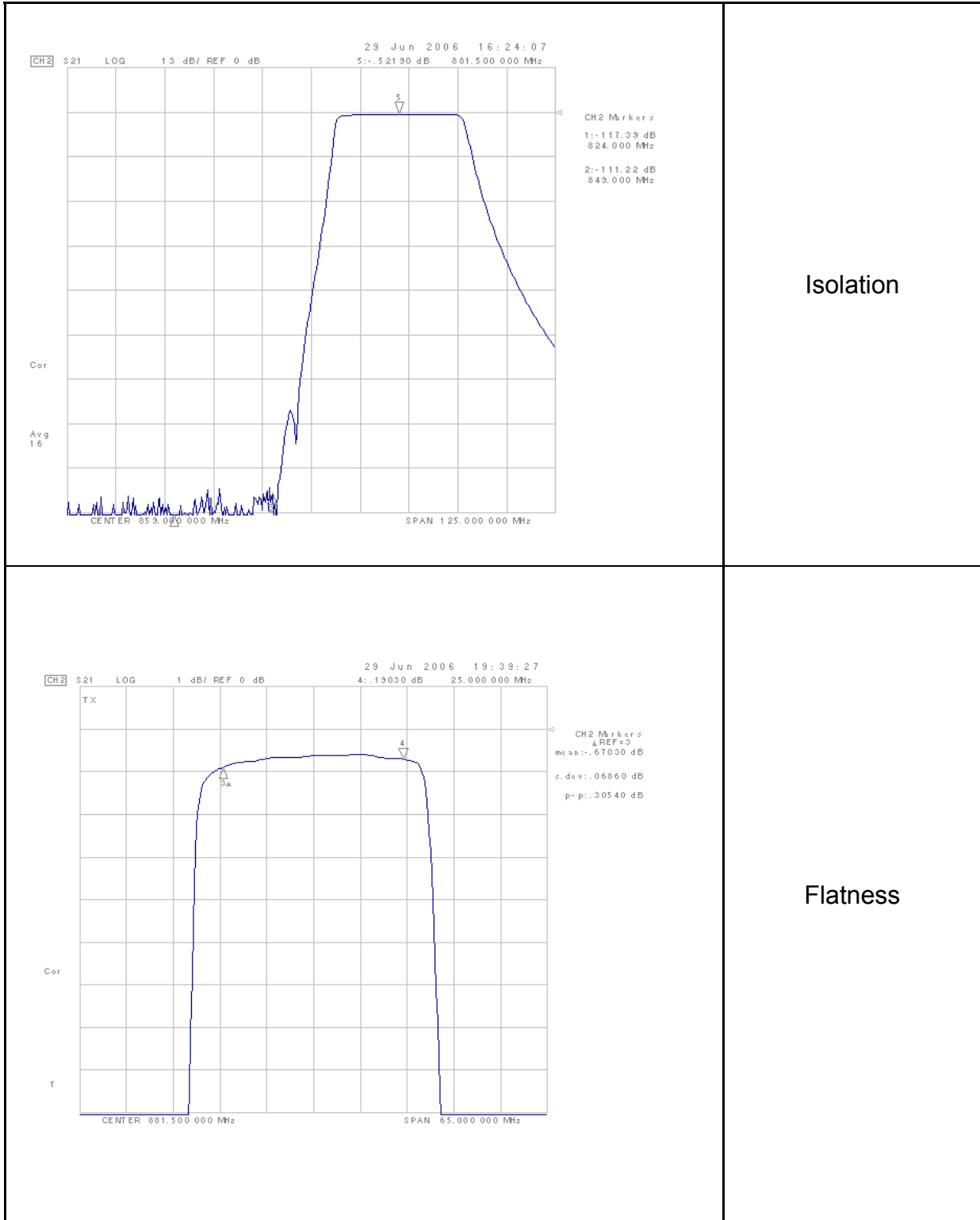
3.3. LNA Drawing

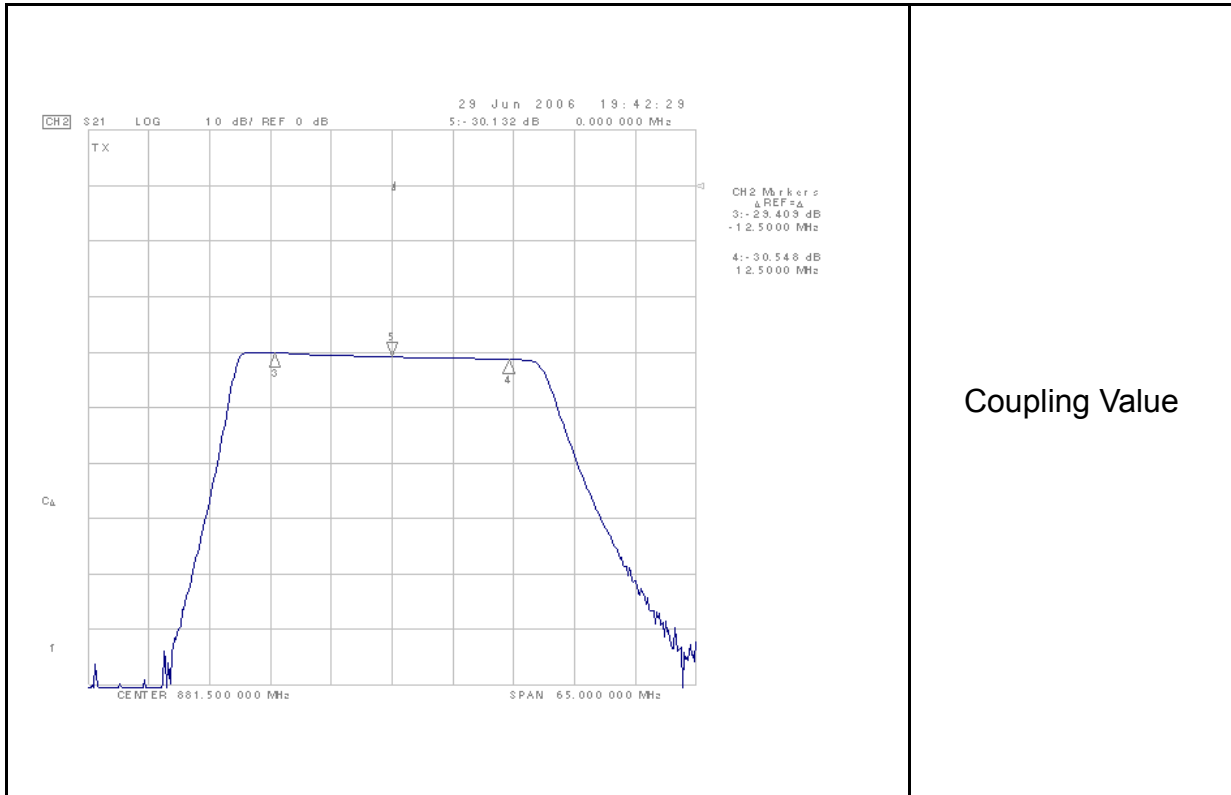


4. Test Report

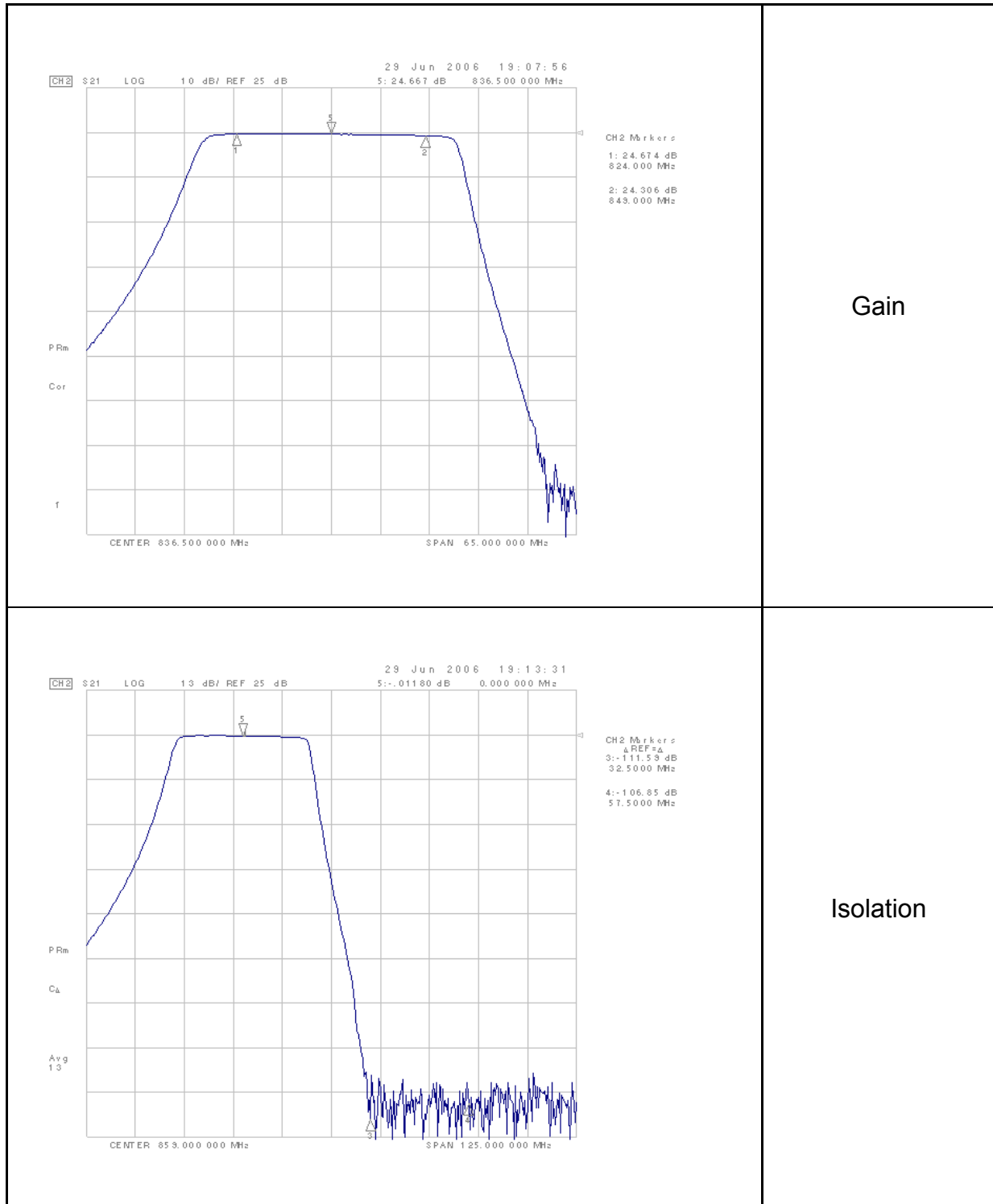
4.1. Tx Data (Network Analyzer)

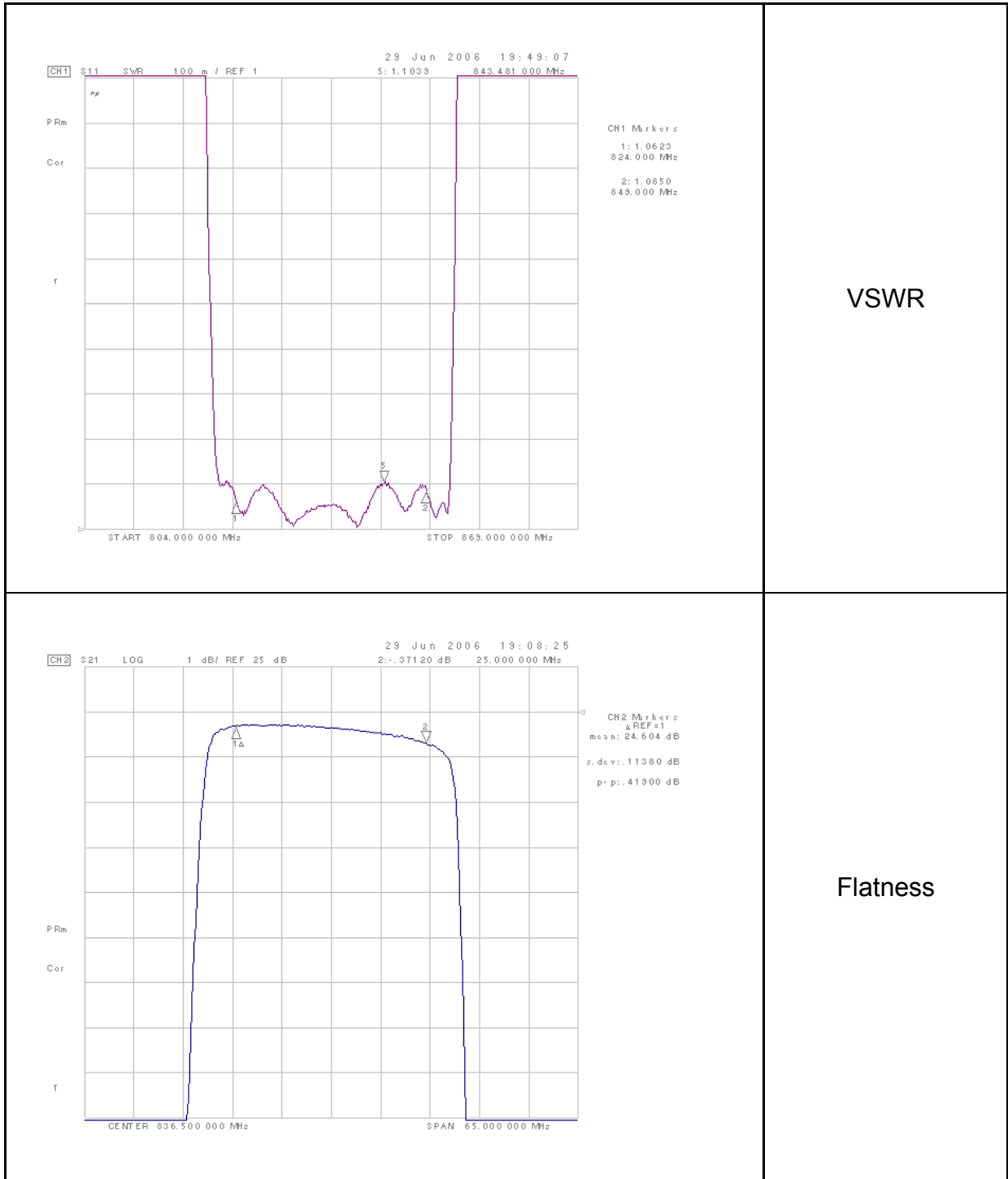




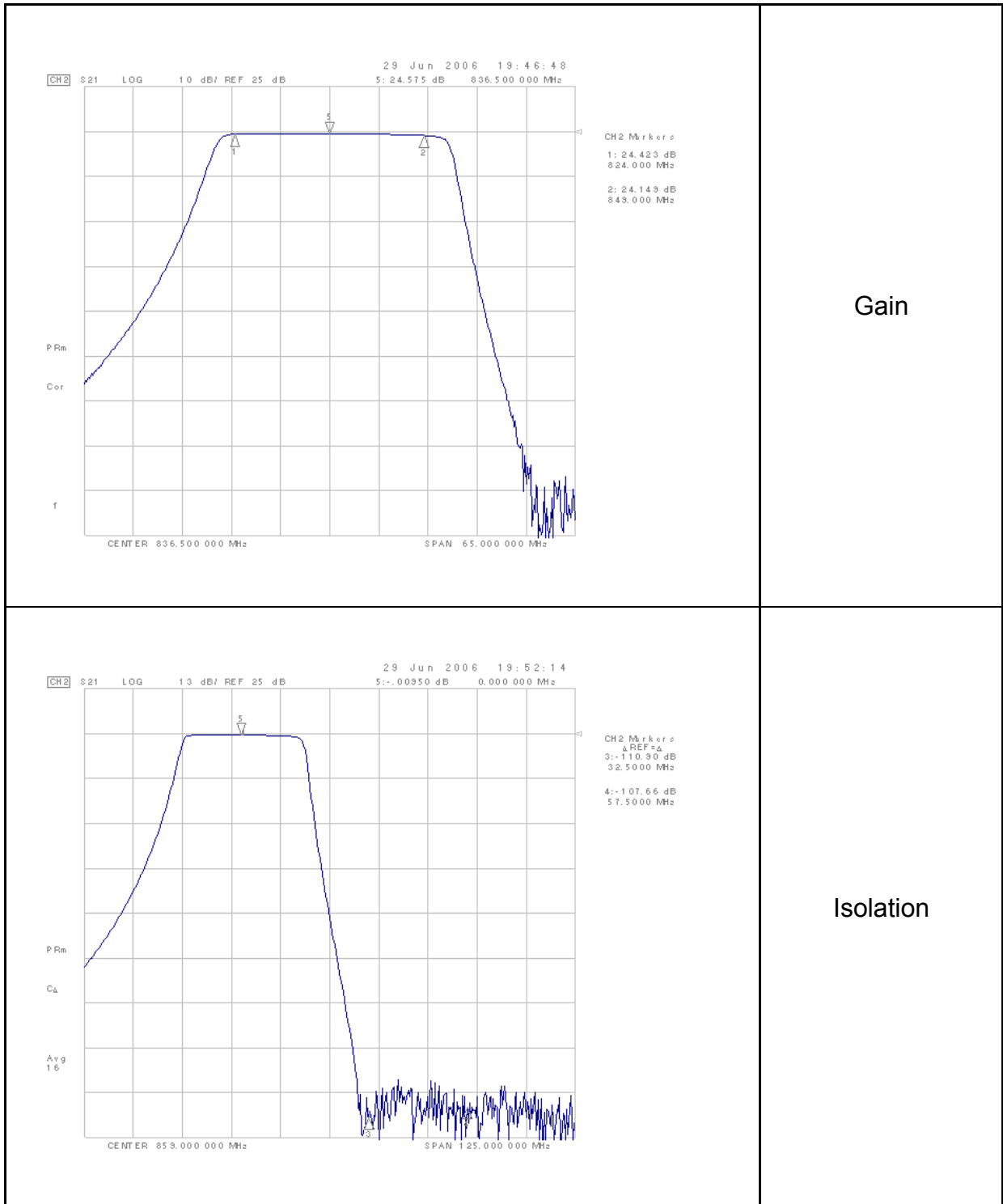


4.2. Rx1 Data (Network Analyzer)





4.3. Rx2 Data (Network Analyzer)





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