



▶ 4way Combiner for DMB

1.1. Specification

No.	Parameter	Specification				Remark
		FM	T-DMB	Fire	TRS	
1	Frequency Range	88~108MHz	174~220MHz	450MHz	800~900MHz	
2	Insertion Loss (max)	1.5dB	1.5dB	1.5dB	1.5dB	
3	VSWR (max)	1.5 : 1	1.5 : 1	1.5 : 1	1.5 : 1	
4	Pass Band Ripple (max)	0.5dB	0.5dB	0.5dB	0.5dB	
5	Isolation (min)	50dBc	50dBc	50dBc	50dBc	
6	Input Power	100W	100W	100W	100W	
7	Impedance	50Ω				
8	Temperature / Humidity	-20℃ ~ + 65℃ / 0 ~ 90%				
9	Connector Type	"N" Type Female				

1.2. Part List

NO.	Parts	Specification	Material	Remark
1	Housing	160 X 164 X 28	AL6061	Ag-plating
2	Cover	160 X 164 X 2T	AL6061	Ag-plating
3	PCB	Er=3.2 62Mil		
4	Connector	Small N-TYPE(F) 4H-5X3	Brass	Ni-plating (PIN Au-plating)
5	BOLT	M3X8 외	SUS	
6	Chip capacitor	High-Q	Ceramic	
7	Coil	Ø1.0 Coil	Copper	



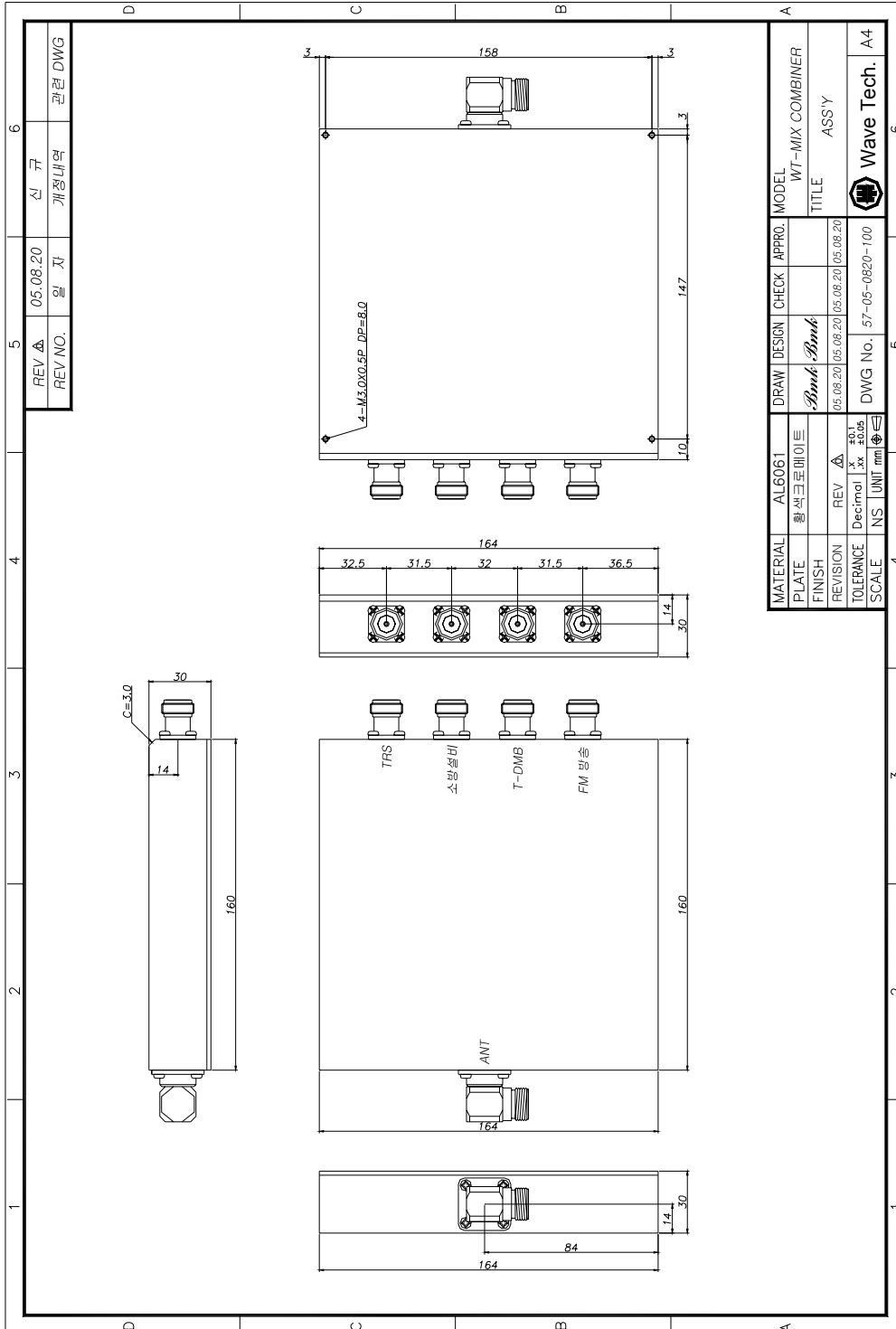
WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

2. Drawing

2.1. Mix Combiner



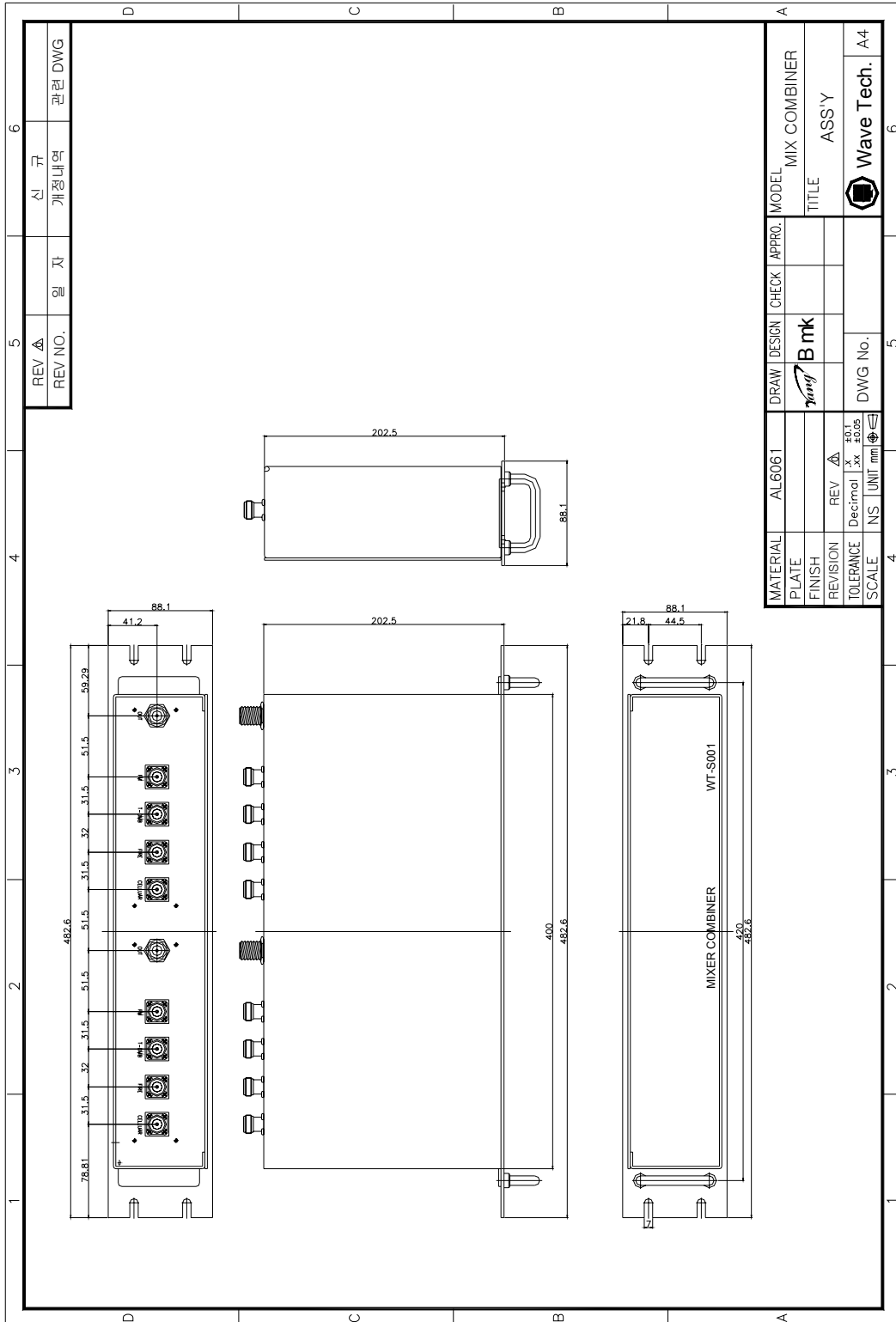


WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

2.2. Single Module



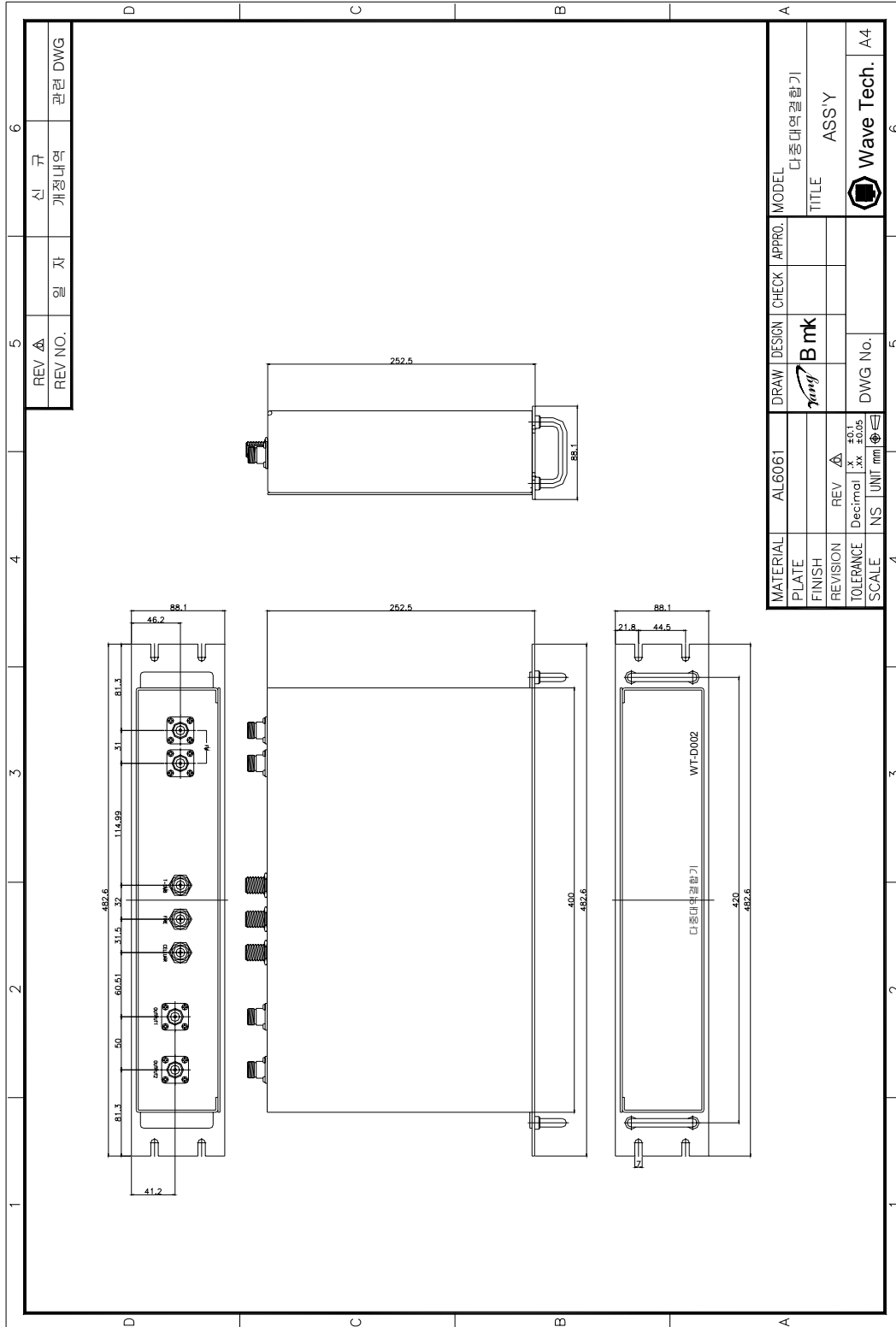


WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

2.3. Dual Module



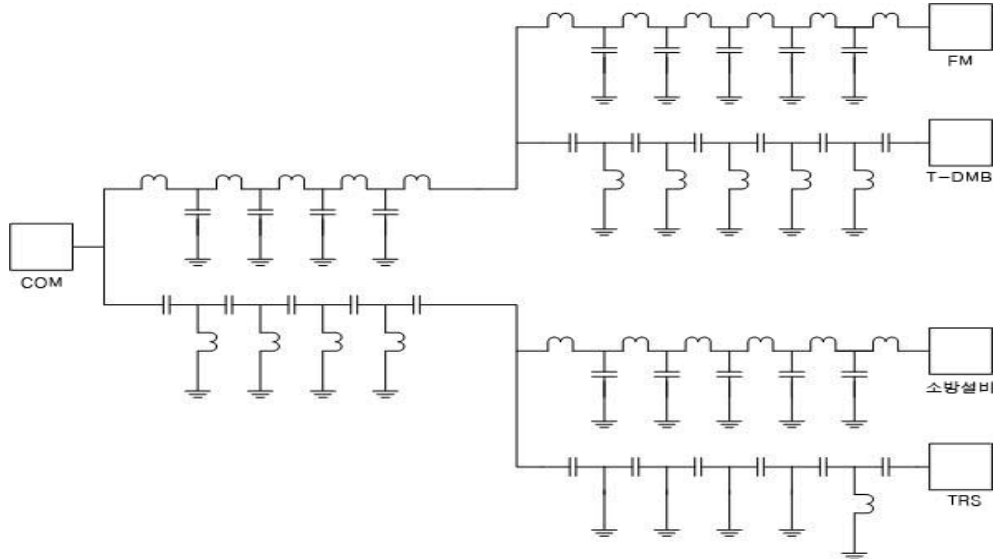


WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

3. Circuit Diagram



4. Product Picture

- Pic1





WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

- Pic2



- Pic3





WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

- Pic4



- Pic5



- Pic6





5. Test Report

5.1. Data Sheet

- FM Path

Parameter	Specification	DATA
Insertion Loss	1.5dB max @ 88 ~ 108MHz	0.38dB
VSWR	1.5:1 Max. @ 88 ~ 108MHz	24.0dB
Pass Band Ripple	0.5dB max @ 88 ~ 108MHz	0.14dB
Isolation	50dBc min @ T-DMB, Fire appliance, TRS	60dBc

- T-DMB Path

Parameter	Specification	DATA
Insertion Loss	1.5dB max @ 174 ~ 220MHz	0.48dB
VSWR	1.5:1 Max. @ 174 ~ 220MHz	22.0 dB
Pass Band Ripple	0.5dB max @ 174 ~ 220MHz	0.08 dB
Isolation	50dBc min @ FM, Fire appliance, TRS	60 dBc

- Fire Appliance Path

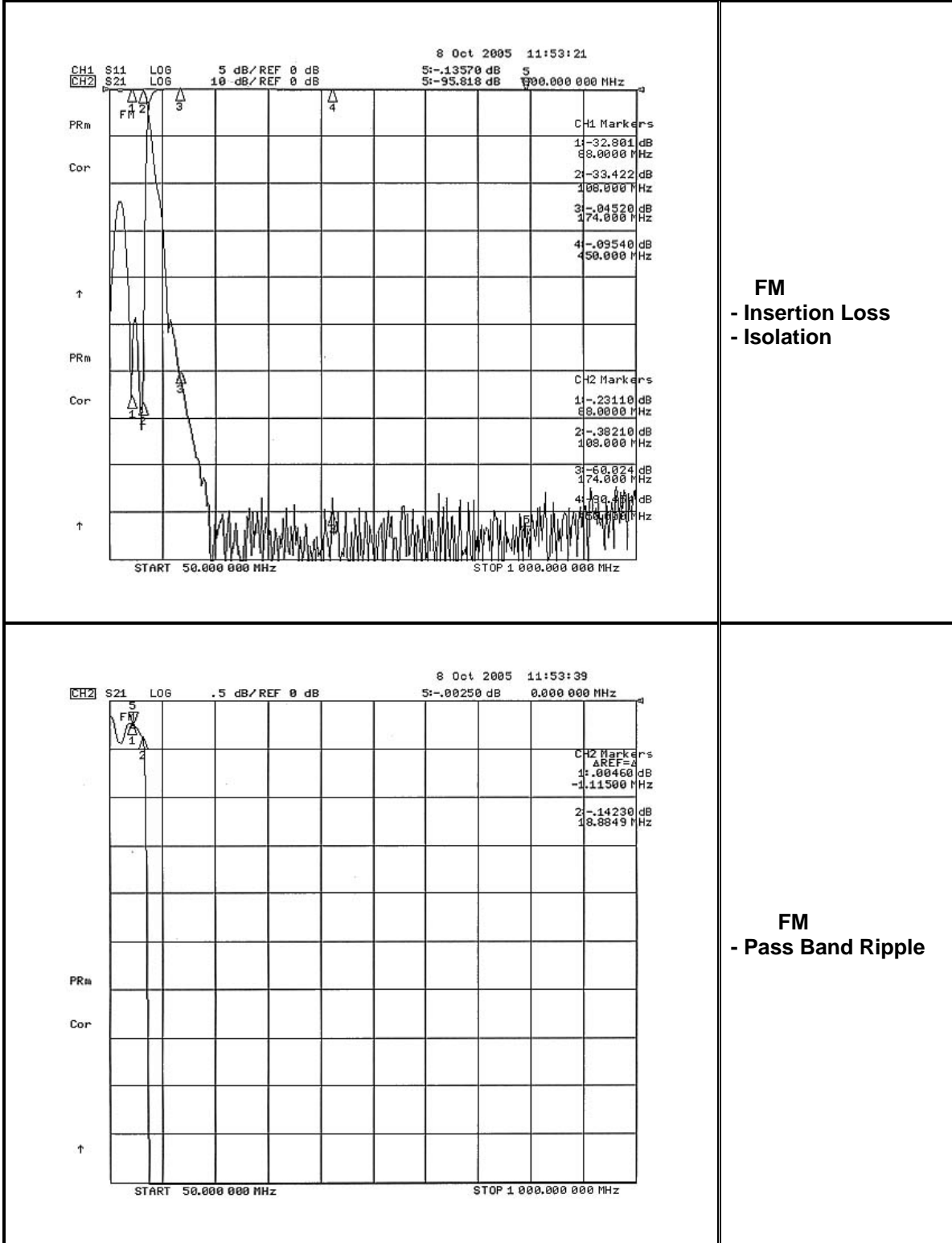
Parameter	Specification	DATA
Insertion Loss	1.5dB max @ 450MHz	0.8 dB
VSWR	1.5:1 Max. @ 450MHz	25.2 dB
Pass Band Ripple	0.5dB max @ 450MHz	0.05 dB
Isolation	50dBc min @ FM, T-DMB, TRS	76 dBc

- TRS Path

Parameter	Specification	DATA
Insertion Loss	1.5dB max @ 800 ~ 900MHz	0.49 dB
VSWR	1.5:1 Max. @ 800 ~ 900MHz	22.0 dB
Pass Band Ripple	0.5dB max @ 800 ~ 900MHz	0.04 dB
Isolation	50dBc min @ FM, T-DMB, Fire appliance	83 dBc



5.2. DATA (Network Analyzer)



FM
- Insertion Loss
- Isolation

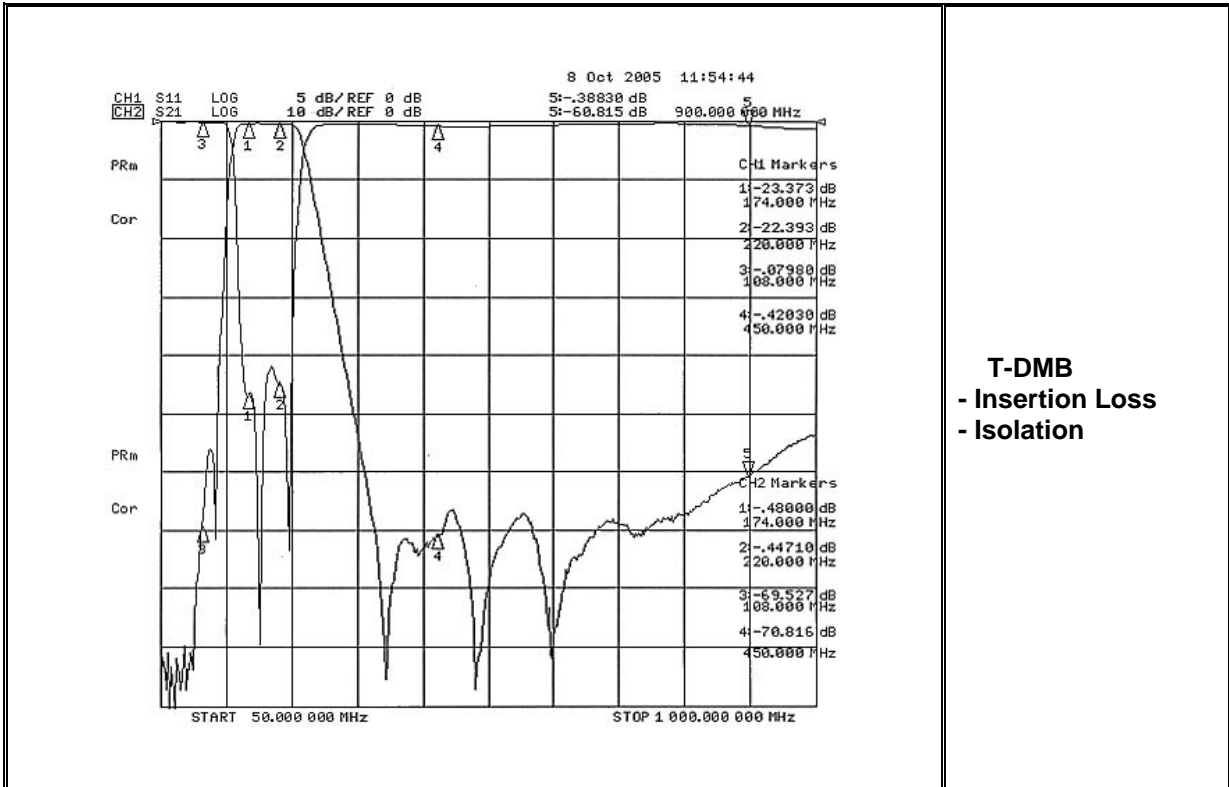
FM
- Pass Band Ripple



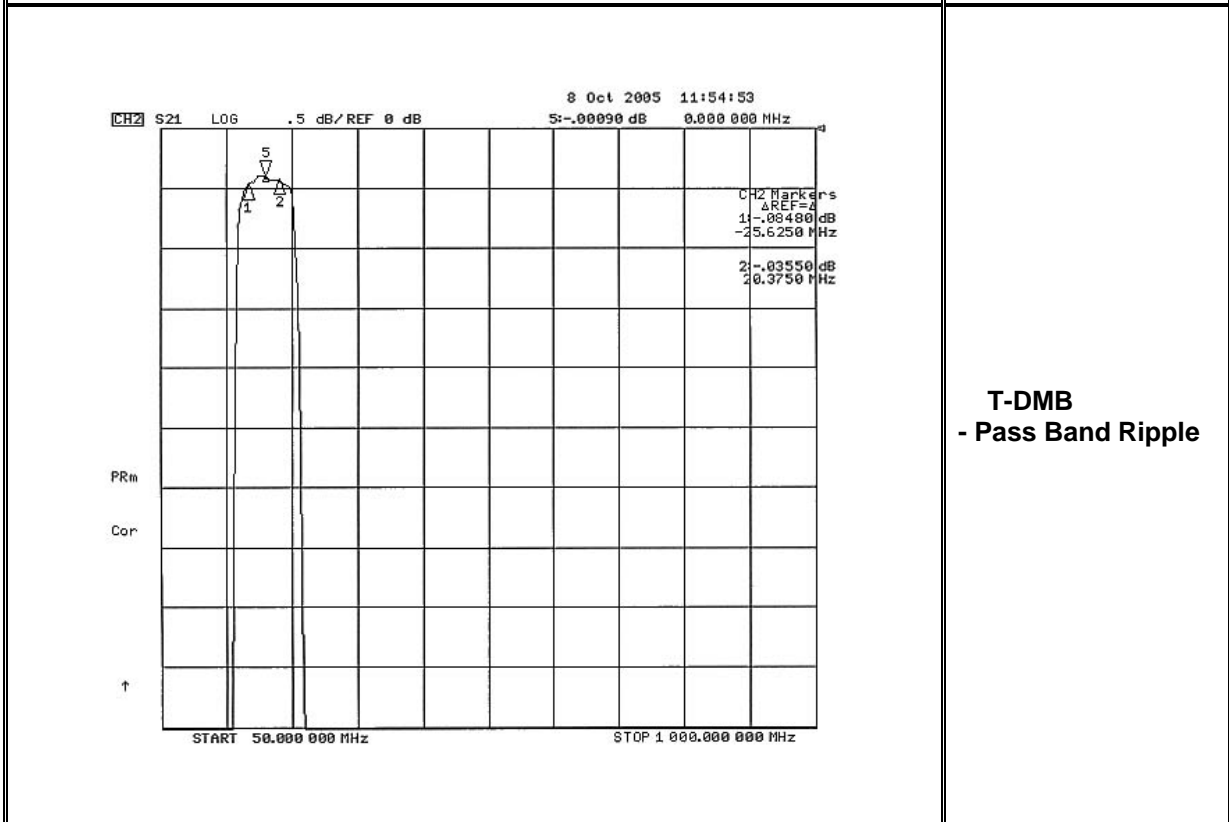
WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766



**T-DMB
- Insertion Loss
- Isolation**



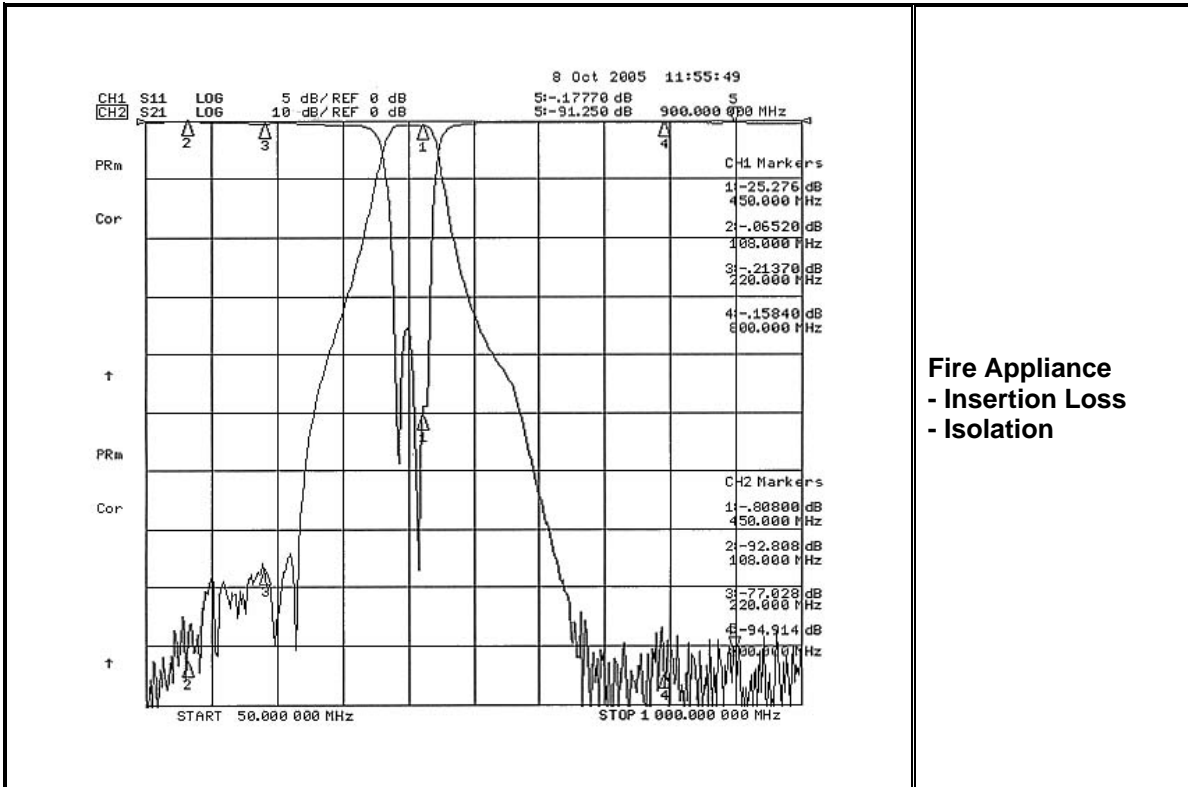
**T-DMB
- Pass Band Ripple**



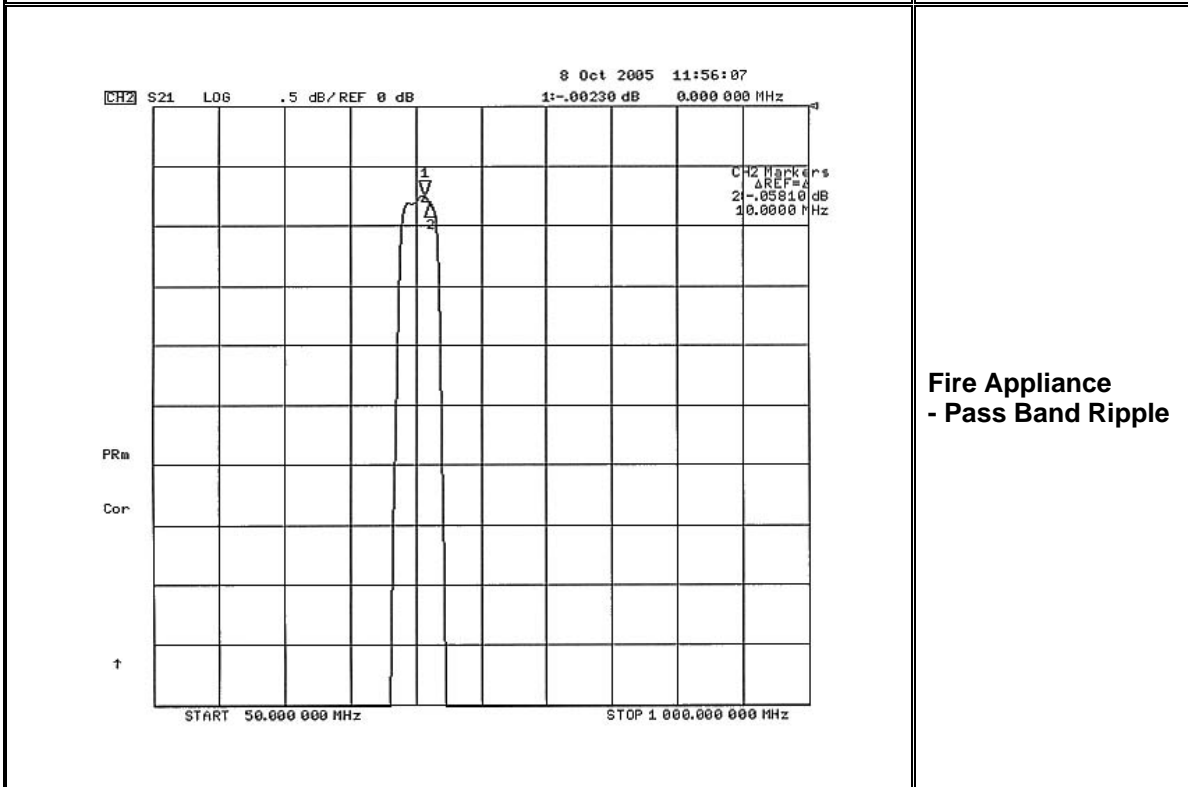
WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766



Fire Appliance
- Insertion Loss
- Isolation



Fire Appliance
- Pass Band Ripple



WAVE-TECH INC.

Bldg. Wave-Tech 4th floor, 14-4 Dangdong Gunpo Kyunggi Korea 435-010

Phone: +82-31-451-8774 / Fax: +82-31-451-8766

