

DUAL BAND COMBINER

PART NO. : WV-DBC-0819-3D-03

◆ APPLICATION

- > Integrates Wireless Bands(790MHz~862MHz,880MHz~960MHz, 1710MHz~1880MHz)
- > Designs for Co-siting systems
- > Outdoor Application

◆ FEATURE

- > High Reliability
- > **RoHS Compliant**
- > IP68-classified

◆ ELECTRICAL SPECIFICATION

ITEM	SPECIFICATION		
	PORT A 800	PORT B 900-1800	
Frequency Range	790MHz ~ 862MHz	880MHz ~ 960MHz	1710MHz ~ 1880MHz
Bandwidth	72MHz	80MHz	170MHz
Optional Port B	-	-	1920MHz~2170MHz (1710MHz~2170MHz)
Insertion Loss	0.4dB Max @ Port A to E & Port B to E		
VSWR	1.2:1 Max		
PIMD1	3rd Order Intermodulation Products < -160dBc. Filter location: Antenna/RRU (800 MHz), Antenna/feeder (900 – 1800 MHz) Input frequencies: 800 MHz, 900 MHz, 1800 MHz Requirements shall be fulfilled for all possible combinations of frequencies, carrier types and input powers according to Table 1 below.		
PIMD2	Optional 3rd Order Intermodulation Products < -160dBc. Filter location: Antenna/RRU (800 MHz), Antenna/feeder (900 – 2100 MHz) Input frequencies: 800 MHz, 900 MHz, 1800 MHz, 2100 MHz Requirements shall be fulfilled for all possible combinations of frequencies, carrier types and input powers according to Table 2 below.		
Isolation	70dB Min @ (Port A to B)		
Power	Maximum Power Port A > 80W (at 50° C ambient temperature) Maximum Power Port B > 160W (at 50° C ambient temperature) Maximum Power per Unit > 240W (at 50° C ambient temperature) Optional : Maximum Power Port B > 220W (at 50° C ambient temperature) Optional : Maximum Power per Unit > 300W (at 50° C ambient temperature)		
DC Pass	All Path		
Surge Protection	10kA using 8/20us pulse		
In/Out Impedance	50 Ohms Nominal		

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Frequency	Port	RAT	# carriers	Input power per frequency (Watt)	System IM2 level (dBc) - Guaranteed	System IM2 level (dBc) - Typical	System IM3 level (dBc) - Guaranteed	System IM3 level (dBc) - Typical
800 MHz	A	LTE	1x10 MHz	40	-	-	150 @2tone- 20W Input	160 @2tone- 20W Input
900 MHz	B	LTE+GSM	1x10 MHz + 2	30 + 2x20 = 70				
1800 MHz	B	LTE+GSM	1x20 MHz + 2	30 + 2x20 = 70				

Table 1. Diplexer 800/900-1800 .

Frequency	Port	RAT	# carriers	Input power per frequency (Watt)	System IM2 level (dBc) - Guaranteed	System IM2 level (dBc) - Typical	System IM3 level (dBc) - Guaranteed	System IM3 level (dBc) - Typical
800 MHz	A	LTE	1x10 MHz	40	-	-	150 @2tone- 20W Input	160 @2tone- 20W Input
900 MHz	B	LTE+GSM	1x10 MHz + 2	30 + 2x20 = 70				
1800 MHz	B	LTE+GSM	1x20 MHz + 2	30 + 2x20 = 70				
2100 MHz	B	UMTS	3x5 MHz	60				

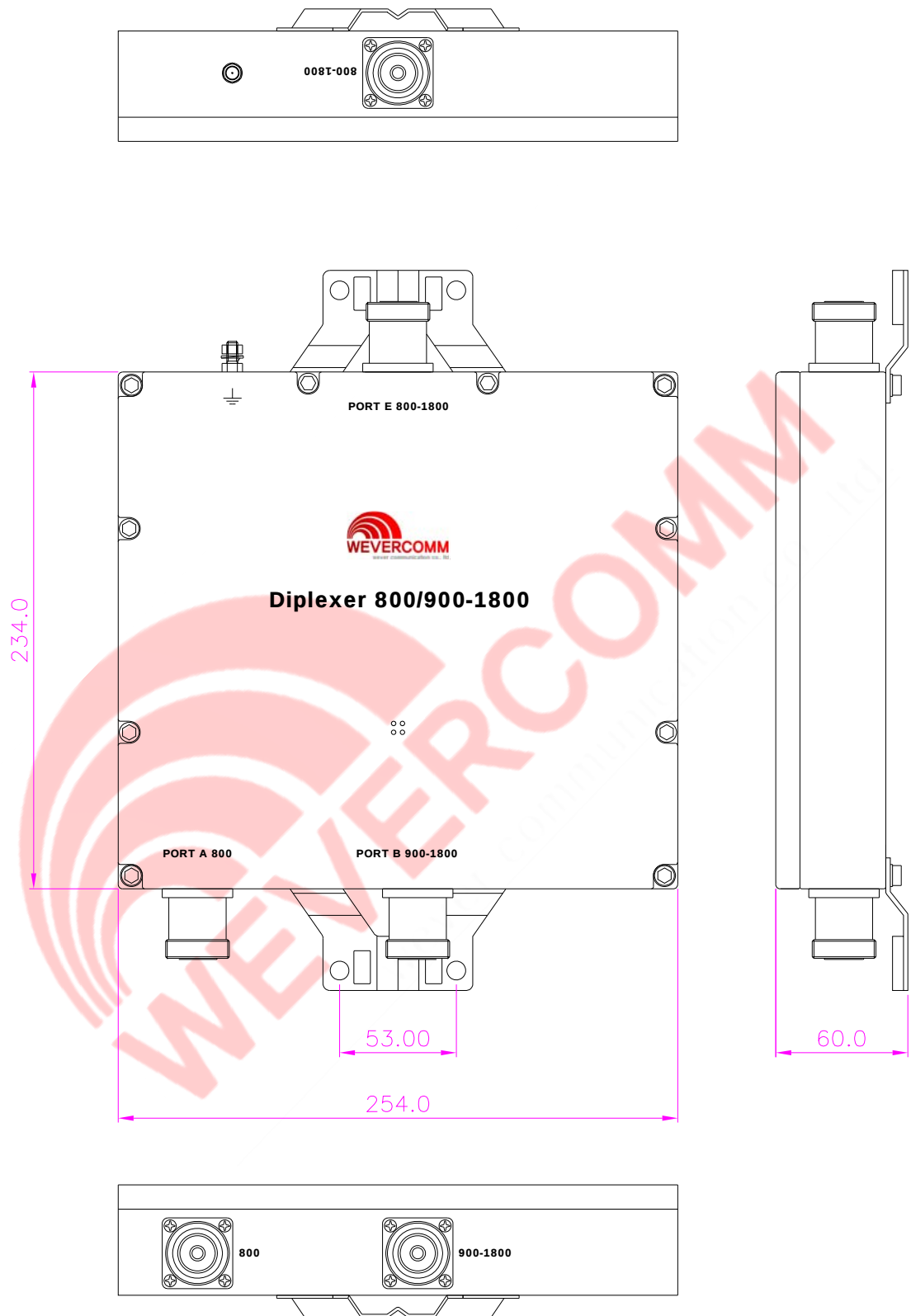
Table 2. Diplexer 800/900-2100 - Optional.

◆ MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATION
Dimension	262.0 x 263.0 x 60.0 Max (unit:mm)
Mounting Points	Wall or Pole
RF Connector	7/16 DIN Female Long Neck Connector
Connector Position	See Outline Drawing
Weight	Single : Apprx. 4.85Kgs. Double : Apprx. 9.7Kgs.
Finish	Gray color epoxy coating

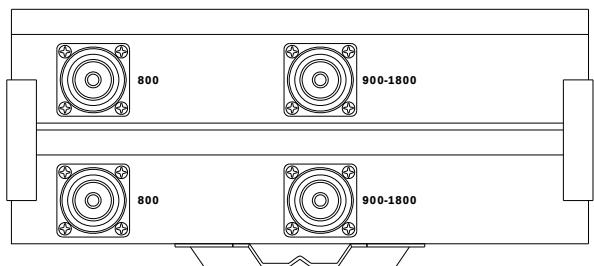
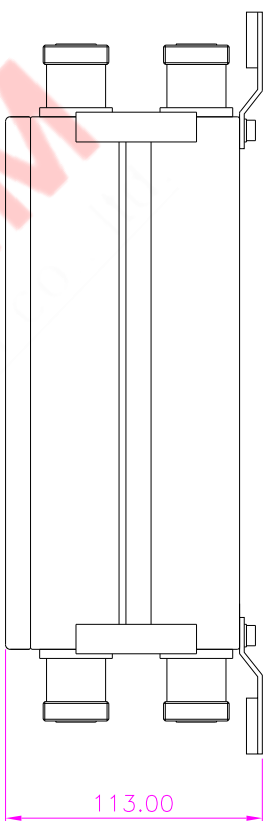
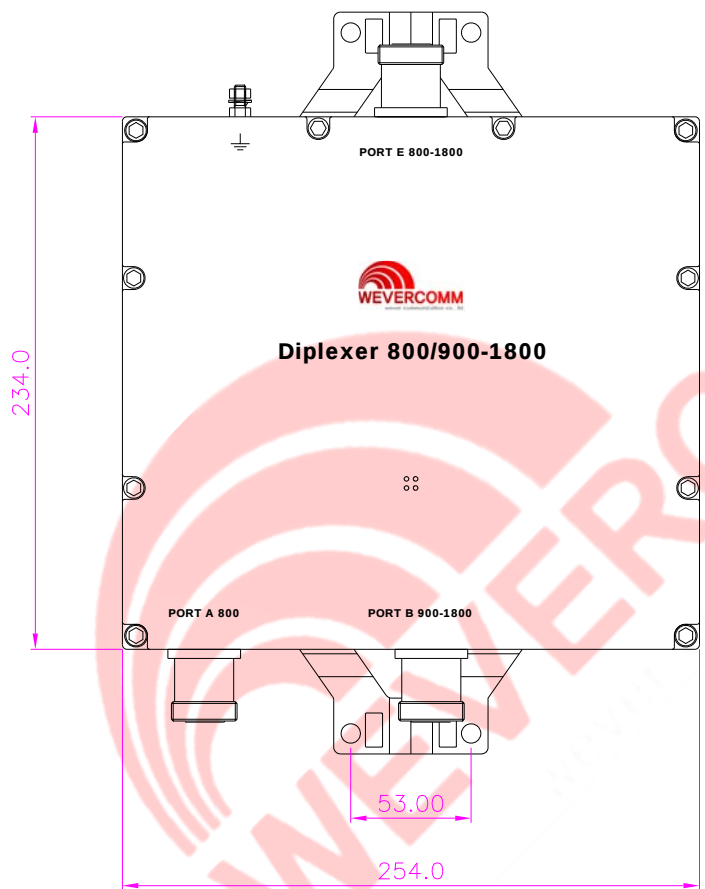
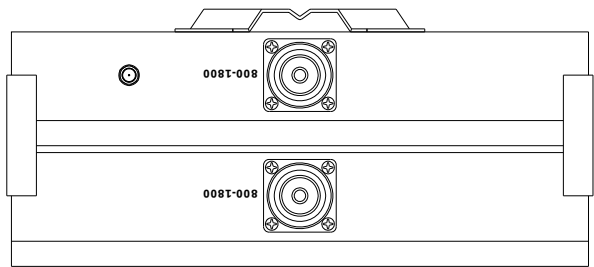
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◆ OUTLINE DRAWING



SINGLE (Part No. : WV-DBC-0819-3D-03-S)

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DOUBLE (Part No. : WV-DBC-0819-3D-03-D)