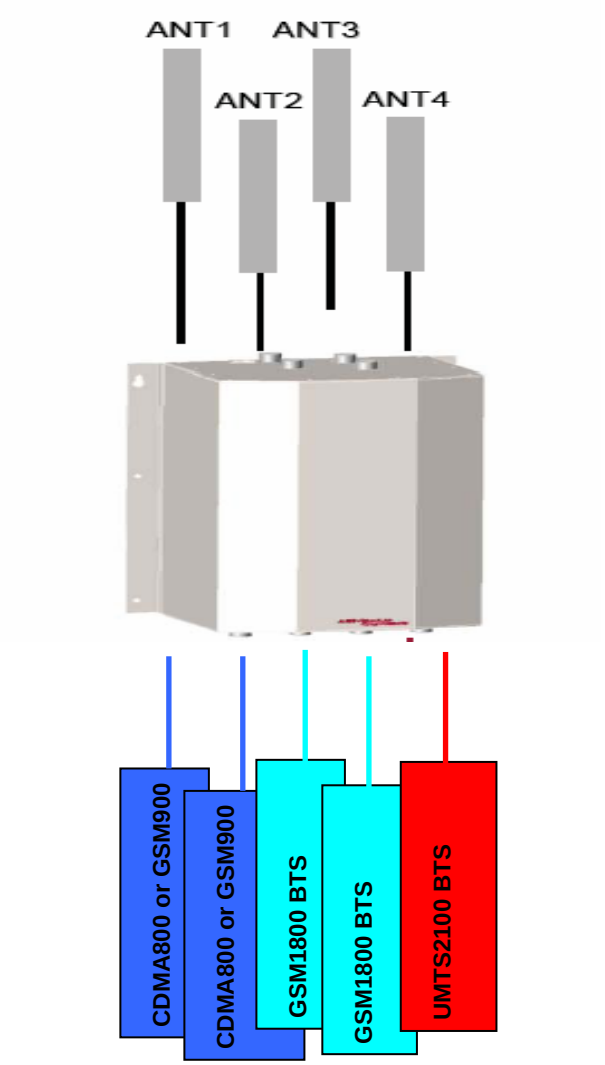
Multi-Network Combiner

Product Code : PW-TRID-7229-4



Type A

Type B

Combiners upto 5RBS into 4 antenna ports

This Multi-Network combiner enable 5 Radio Base Station connect to the Combiner

2 CDMA800/GSM900 Radio Base Station
2 GSM1800 Radio Base Station
1 UMTS2100 Radio Base Station

It combine RF Signal from RBS to 4 antenna ports or split the signal to 5RBS in the Receiving direction.

This is a highly important function when designing shared antenna system wishing to connect multiple RBS's to the shared antenna.

Save money by installing our Multi-Network Combiners

By utilizing Pacific Wave's Multi Network Combiner, you will reduce the cost of antennas, feeders and installation. It eliminates the cost in-efficient need to make one antenna installation for each system. By simply connecting the RBSs into combiner, it will immediately render you all the benefits of antenna sharing.

Safe from interference

This Multi-Network combiner constructed using Duplex-Filter & Hybrid system which able to provide adequate in-band isolation and out-band isolation to avoid channel interference.

Low Insertion Loss & High Power Rating

The Combiner capable of 100watt for each input port with maximum 8dB insertion loss.

TECHNICAL SPECIFICATION FOR MULTI-NETWORK COMBINER

(Below are some Typical data. Please contact us for more detail information)

Electrical Specification

Product Code	PW-TRID-7229-4
Passband - Input port :	
Port 1: CDMA800-GSM900	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 2: CDMA800-GSM900	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 3 : GSM1800	1710-1785Mhz, 1805-1880Mhz
Port 4 : GSM1800	1710-1785Mhz, 1805-1880Mhz
Port 5 : UMTS2100	1920-1980Mhz, 2110-2170Mhz
Port 6 : UMTS2100 (Terminated)	1920-1980Mhz, 2110-2170Mhz
Number of Output Port	4 Port (ANT1 to ANT4)
Insertion Loss :	
Port 1,2 :CDMA800/GSM900 to ANT 1-4	< 7.5dB
Port 3,4 :GSM1800 to ANT 1-4	< 8.0dB
Port 5,6 :UMTS2100 to ANT 1-4	< 8.0dB
Input Return Loss	>18dB
Isolation between system :	
CDMA800 & GSM900 Vs GSM1800	> 80dB
CDMA800 & GSM900 Vs UMTS2100	> 80dB
GSM1800 Vs UMTS2100	> 80dB
Isolation between same system	>20dB (GSM900 & CDMA800 is same band)
Inter-modulation 2 x +43dB	≤ -140dBc
Maximum input power/port	100watt
Impedance in/out	50 Ohm

Mechanical Specification

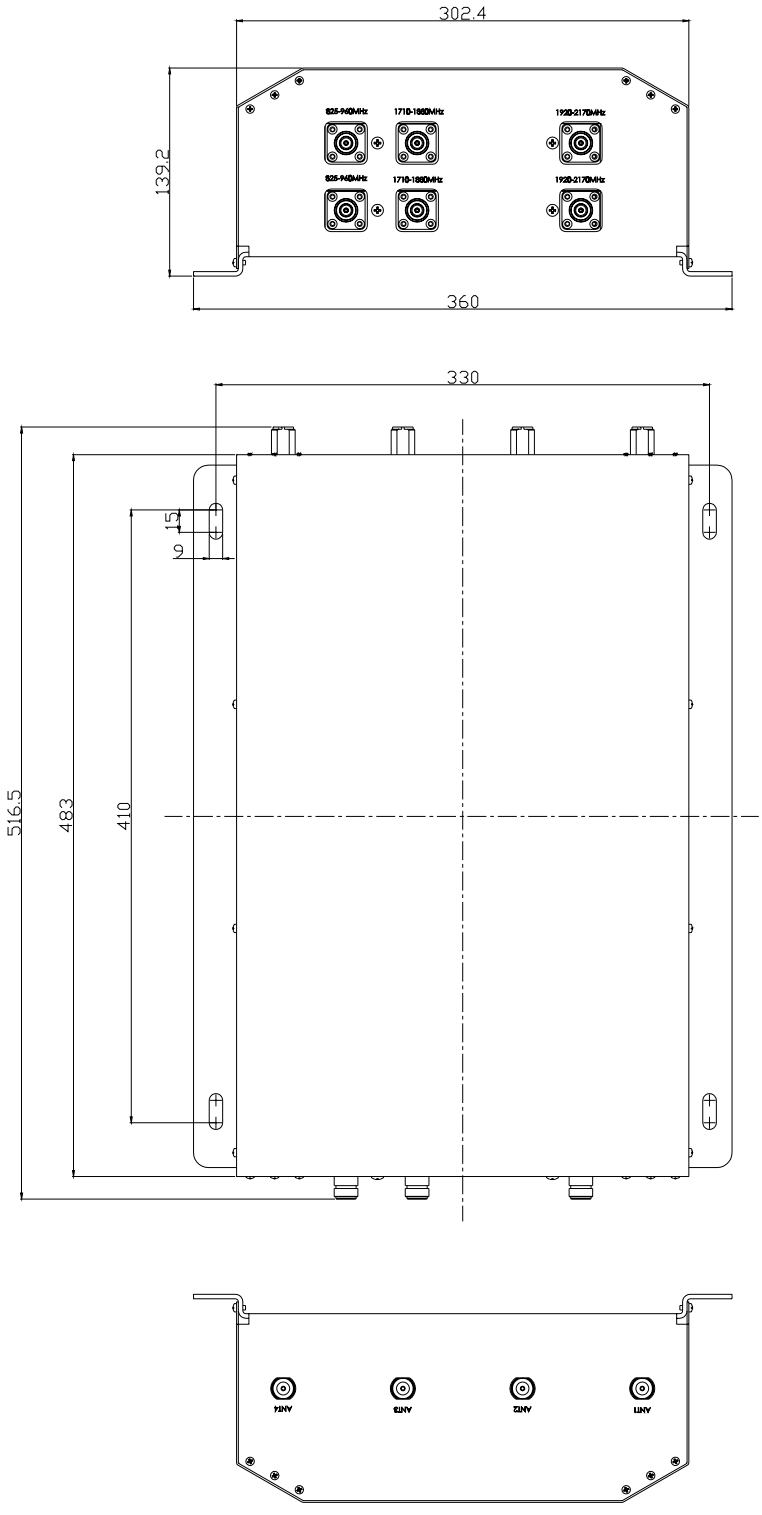
Dimension (WxLxD)	302 x 483 x 139 mm (Type A)
	426 x 265 x 159 mm (Type B)
Weight (Max) :	<10Kg
Connector for input & output	N-female
	(at both side for Type A & at below side for Type B)

Environmental Specification

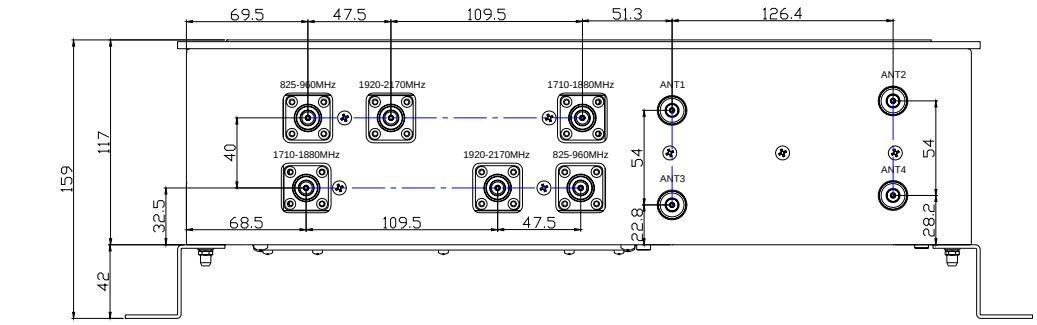
Temperature Range (normal operation)	-30 to +70 ^{0}C
Ingress Protection Class	IP40 for Indoor – Type A
	IP54 for Outdoor – Type B
Humidity	Relative 5-100%

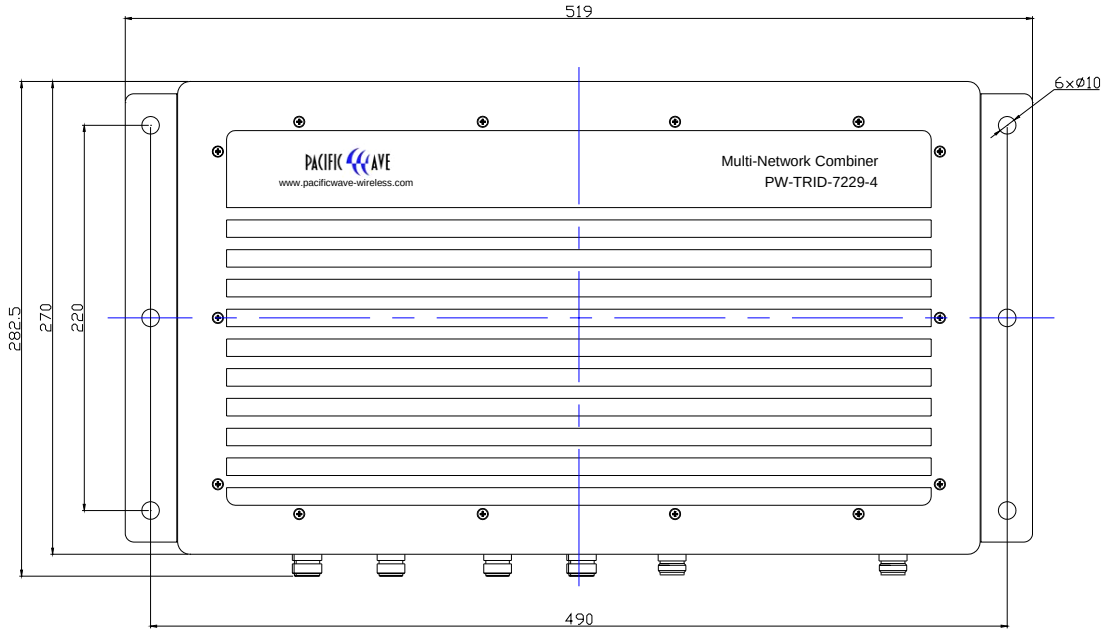
Customer should provide Band Pass Filter between CDMA 800Mhz & GSM 900Mhz if both frequency are used together.
Factory reserves the right to change product specification at any time (if found necessary).

OUTLINE DRAWING : Type A



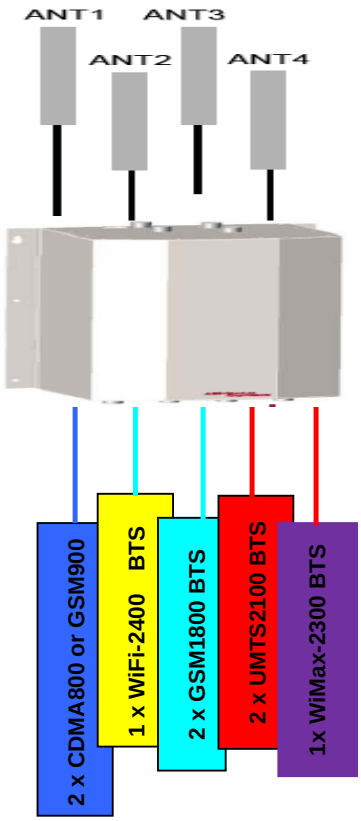
OUTLINE DRAWING : Type B





Multi-Network Combiner

Product Code : PW-TRID-7229-4



Version C

Version D

Save money by installing our Multi-Network Combiners

By utilizing Pacific Wave's Multi Network Combiner, you will reduce the cost of antennas, feeders and installation. It eliminates the cost in-efficient need to make one antenna installation for each system. By simply connecting the BTS's into combiner, it will immediately render you all the benefits of antenna sharing.

Safe from interference

This Multi-Network combiner constructed using Duplex-Filter & Hybrid system which able to provide adequate in-band isolation and out-band isolation to avoid channel interference.

Low Insertion Loss & High Power Rating

The Combiner capable of 100watt for each input port with maximum 8dB insertion loss.

Combiners upto 8 BTS into 4 antenna ports

This Multi-Network combiner enable 8 Base Transceiver Station connect to the Combiner

2 CDMA800/GSM900 Base Transceiver Station
2 GSM1800 Base Transceiver Station
2 UMTS2100 Base Transceiver Station
1 WiFi 2400 Access Point
1 WiMax 2300 Base Transceiver Station

It combine RF Signal from BTS to 4 antenna ports or split the signal to 8 BTS in the Receiving direction.

This is a highly important function when designing shared antenna system wishing to connect multiple RBS's to the shared antenna.

TECHNICAL SPECIFICATION FOR MULTI-NETWORK COMBINER

Electrical Specification

Product Code	:	PW-TRID-7229-4 ver C
Passband - Input port :		
Port 1: CDMA800-GSM900	:	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 2: CDMA800-GSM900	:	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 3 : GSM1800	:	1710-1785Mhz, 1805-1880Mhz
Port 4 : GSM1800	:	1710-1785Mhz, 1805-1880Mhz
Port 5 : UMTS2100	:	1920-1980Mhz, 2110-2170Mhz
Port 6 : UMTS2100	:	1920-1980Mhz, 2110-2170Mhz
Port 7 : WiFi 2400	:	2400 – 2500 Mhz
Port 8 : WiMax 2300	:	2300 – 2390 Mhz
Number of Output Port	:	4 Port (ANT1 to ANT4)
Insertion Loss :		
Port 1,2 :CDMA800/GSM900 to ANT 1-4	:	< 7.5dB
Port 3,4 :GSM1800 to ANT 1-4	:	< 8.0dB
Port 5,6 :UMTS2100 to ANT 1-4	:	< 8.0dB
Port 7,8 :WiFi/WiMax to ANT 1-4	:	< 8.0dB
Input Return Loss	:	> 18dB
Isolation between system :		
CDMA800 & GSM900 Vs GSM1800	:	> 80dB
CDMA800 & GSM900 Vs UMTS2100	:	> 80dB
CDMA800 & GSM900 Vs WiFi / WiMax	:	> 80dB
GSM1800 Vs UMTS2100	:	> 80dB
GSM1800 Vs WiFi / WiMax	:	> 80dB
UMTS2100 Vs WiFi / WiMax	:	> 80dB
Isolation between same system	:	>20dB (GSM900 & CDMA800 is same band)
Passive Inter-modulation @2 x +43dB	:	≤ -140dBc
Maximum input power/port	:	100watt
Impedance in/out	:	50 Ohm

Mechanical Specification

Dimension (WxLxD)	:	426 x 265 x 159 mm
Weight (Max) :	:	≤ 13Kg
Connector for input	:	N-female (at Below side)
Connector for Output		N-female (at Top side)

Environmental Specification

Temperature Range (normal operation)	:	-30 to +70 ^{0}C
Ingress Protection Class	:	IP40 for Indoor use

Customer should provide Band Pass Filter between CDMA 800Mhz & GSM 900Mhz if both frequency are used together.
Factory reserves the right to change product specification at any time (if found necessary).

TECHNICAL SPECIFICATION FOR MULTI-NETWORK COMBINER

Electrical Specification

Product Code	:	PW-TRID-7229-4 ver D
Passband - Input port :		
Port 1: CDMA800-GSM900	:	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 2: CDMA800-GSM900	:	825-845Mhz, 870-890Mhz & 890-915Mhz, 935-960Mhz
Port 3 : GSM1800	:	1710-1785Mhz, 1805-1880Mhz
Port 4 : GSM1800	:	1710-1785Mhz, 1805-1880Mhz
Port 5 : UMTS2100	:	1920-1980Mhz, 2110-2170Mhz
Port 6 : UMTS2100	:	1920-1980Mhz, 2110-2170Mhz
Port 7 : WiFi 2400	:	2400 – 2500 Mhz
Port 8 : WiMax 2300	:	2300 – 2390 Mhz
Number of Output Port	:	4 Port (ANT1 to ANT4)
Insertion Loss :		
Port 1,2 :CDMA800/GSM900 to ANT 1-4	:	< 7.5dB
Port 3,4 :GSM1800 to ANT 1-4	:	< 8.0dB
Port 5,6 :UMTS2100 to ANT 1-4	:	< 8.0dB
Port 7,8 :WiFi/WiMax to ANT 1-4	:	< 8.0dB
Input Return Loss	:	> 18dB
Isolation between system :		
CDMA800 & GSM900 Vs GSM1800	:	> 80dB
CDMA800 & GSM900 Vs UMTS2100	:	> 80dB
CDMA800 & GSM900 Vs WiFi / WiMax	:	> 80dB
GSM1800 Vs UMTS2100	:	> 80dB
GSM1800 Vs WiFi / WiMax	:	> 80dB
UMTS2100 Vs WiFi / WiMax	:	> 80dB
Isolation between same system	:	>20dB (GSM900 & CDMA800 is same band)
Passive Inter-modulation @2 x +43dB	:	≤ -140dBc
Maximum input power/port	:	100watt
Impedance in/out	:	50 Ohm

Mechanical Specification

Dimension (WxLxD)	:	426 x 265 x 159 mm
Weight (Max) :	:	≤ 13Kg
Connector for input & output	:	N-female (at TOP side)

Environmental Specification

Temperature Range (normal operation)	:	-30 to +70 ^{0}C
Ingress Protection Class	:	IP65 for Indoor & Outdoor use
Humidity	:	Relative 5-100%

Customer should provide Band Pass Filter between CDMA 800Mhz & GSM 900Mhz if both frequency are used together.
Factory reserves the right to change product specification at any time (if found necessary).

OUTLINE DRAWING : Type C