Unication Two-Way Signal Booster

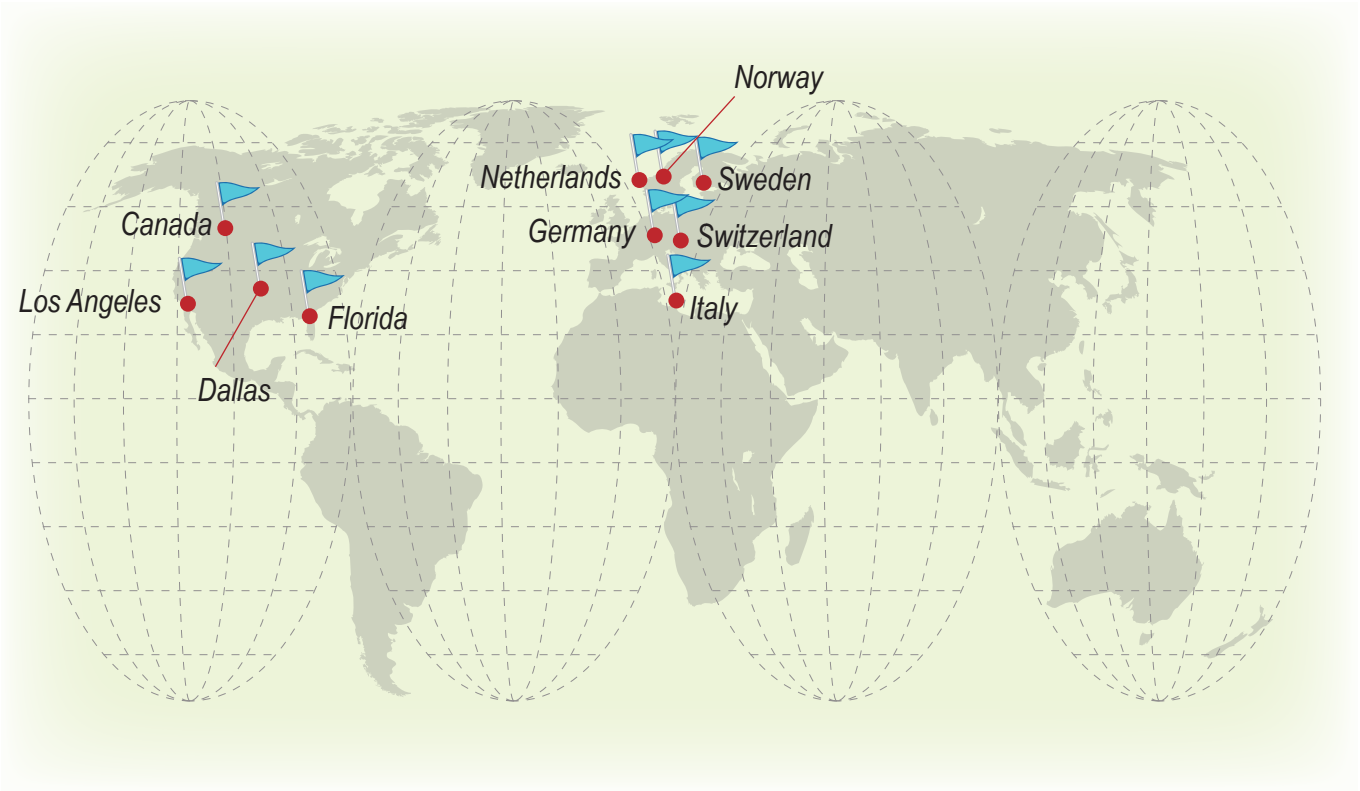
Booster for Public Safety

Please contact us with our Toll Free phone number : 888-657-2963
Leave a message on the Unication Website : http://www.unication.com or http://www.unicationusa.com

Content

What is Unication ?

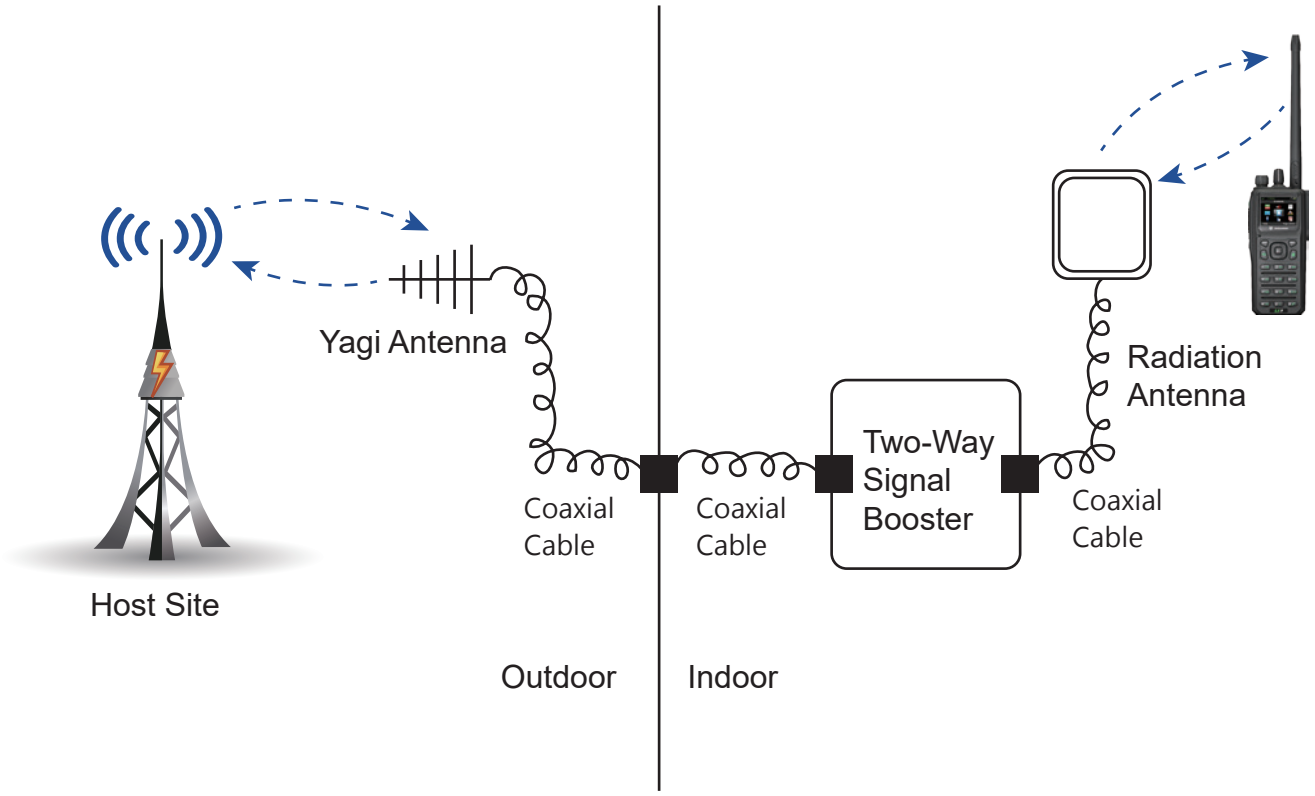
- Unication Co., Ltd was originally founded in 1992 and has 27 years' experience with designing and manufacturing advanced critical communication solutions and systems. The innovation and advancement of Unction's professional radio communications products is the main spindle of the brand's development.
- Unication currently has independent design centers or sales companies in Los Angeles, Dallas, Florida, Poca Reyton, Canada, Australia, and Germany.
- As of now, Unication radio products have been sold to the United States / Canada, the Netherlands, Norway, Sweden, Switzerland, Australia, Italy, India, Indonesia and Middle East countries



■Design Concept of Unication Two-Way Signal Booster：

- The signal of the current public safety Trunk System faces in-building coverage issues, and will decrease 20-30 dB intensity when going through a building. This can cause Two Way Radio users to not receive the signal while in building.
- In-building 2-Way Emergency Radio Communication Enhancement Systems Listing, CSFM Listing, NFPA 72 2013 Edition, (A minimum inbound / outbound signal strength of -95dBm, or other signal strength as required by the authority having jurisdiction, shall be provided throughout the coverage area.) NFPA 1221 2016 Edition and IFC 2018 compliance.
- Since many Two Way Radio users require 24 hour standby, it is imperative that they can receive the signal of the Trunk System at all times. When in building coverage issues cause a weak signal zone in a user’ s house, work or other locations they cannot receive the signal. Unication has developed the Booster product as a solution to this problem. The Booster uses an outdoor antenna to receive the signal and amplifies it, then the indoor antenna transmits the signal to the users’ Two Way Radio device in order to allow users’ to receive the signal like normal, even when in a house or building with weak signal strength.

• The System Block Diagrom Concept



figa : The System Block Diagram

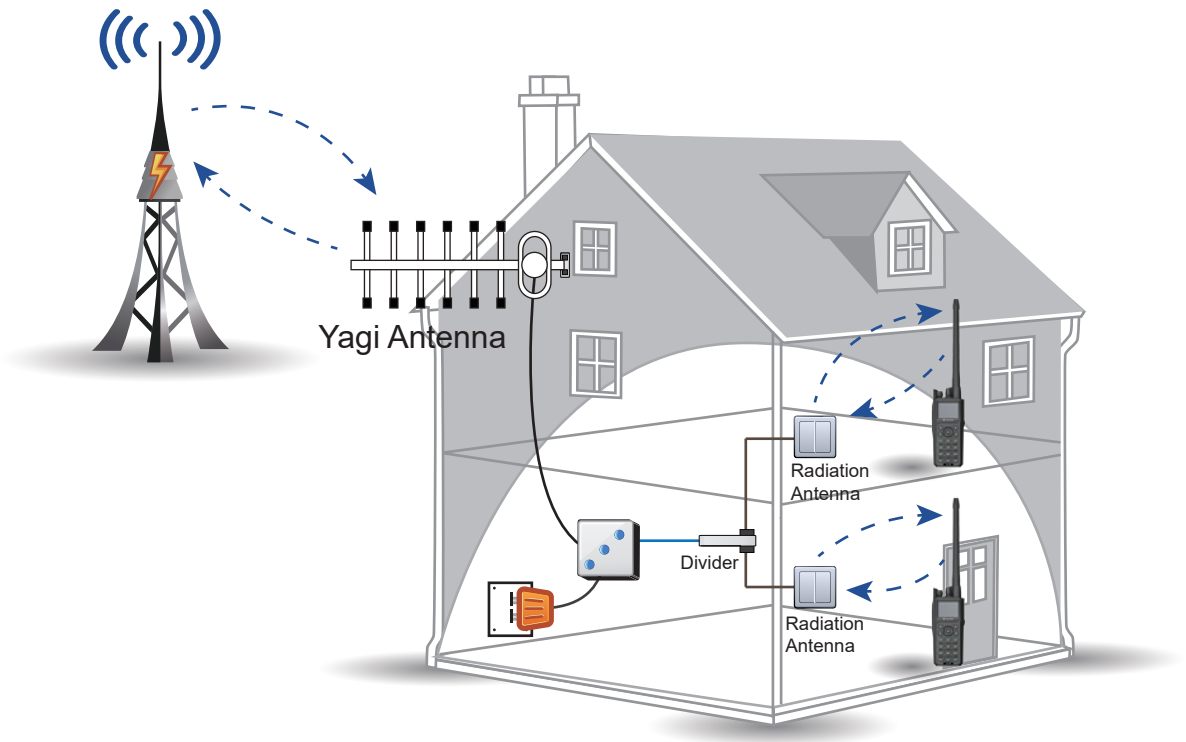
Feature of Unication Two-Way Signal Booster：

- **Convenient for installation, Users can install in their house by themselves：**
  The product contains the materials needed. Users can install the indoor and outdoor antennas, and the Booster host.

- **The gain can be adjusted, and the user can adjust the signal amplification gain according to the required coverage range：**
  Users can adjust the Booster signal amplification gain according to the indoor coverage range required by the user. When the users can not receive the signal in their home or office and need a larger coverage area, they can reach it by just turning the power switch from low to high power.

- **The coverage area can be enlarged. Customers can purchase the divider and antenna to connect with the booster for exporting the signal in order to increase the coverage area in the house：**
  Once the user’ s indoor space is large, the needed area cannot be covered even if turning the amplification gain of the Booster signal to high power. Customers can purchase the divider, cable and another antenna. Users can set the antenna at the position needed to reach the purpose that enlarging the coverage area.

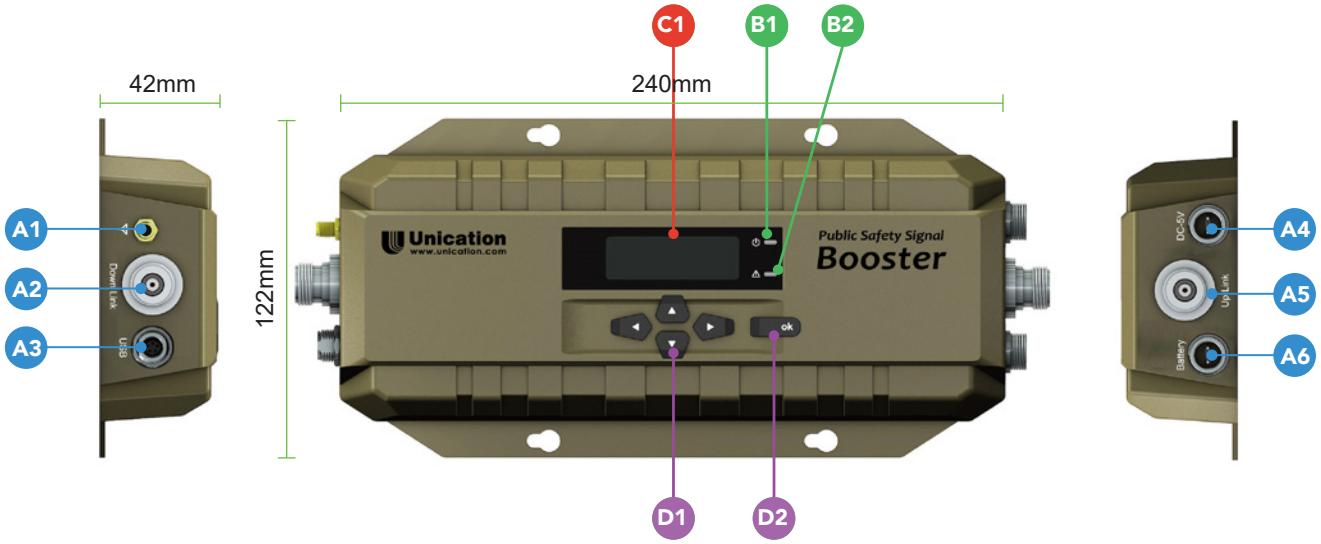
- **Excellent RF Performance:**
  High performance bandpass cavity-type duplexers minimize out of band interference.
  High Power – capable of producing up to 30dBm of RF power.
  High Linearity Amplifiers deliver signals with very low distortion and low IM products.
  Optimized not only for FM and phase 1 P25 but also for TDMA and phase 2 P25 modulations.
  Adjustable RF gain on both LNA and ALC modules.



■ Specification and Function of Unication Two-Way Signal Booster :

● Unication Two-Way Booster :

● Left View ● TOP View ● Right View



A : Interface			
A1	Wifi Antenna	A4	DC 5V
A2	Down Link	A5	Up Link
A3	USB	A6	Backup Battery

B : LED Indicator	
B1	Power LED Indicator
B2	Booster Moniter

C : Display	
C1	LCM

D : Button	
D1	Direction Key
D2	Confirm Key

■ Specification and Function of Unication Two-Way Signal Booster :

● Unication Signal Booster Accessory Introduction

A : Accessory					
A1	Omni Antenna	A4	Yagi Antenna	A7	Power Divider
A2	Plane Antenna	A5	RF Coaxial Cable		
A3	Log-periodic Antenna	A6	Antenna Bracket		

■ Product number			Two-Way Signal Booster		
■ Model number supported by this product			VHF	UHF	700/800 MHz
A	**The frequency and mode supported by this product when compatible with the G Series & U series.**				
A1	Frequency range for this model (Unit: MHz)		The frequency of the VHF Band (136 ~ 174MHz)'s DownLink and UpLink should be provided by the customers.	The frequency of the UHF Band (300 ~ 520MHz)'s DownLink and UpLink should be provided by the customers.	**700/800MHz Band** DownLink : 763-776 & 851-870 UpLink : 806-824 & 794-806 **Only 700MHz Band** DownLink : 763-776 UpLink : 794-806 **Only 800MHz Band** DownLink : 851-870 UpLink : 806-824
A2	The largest gain of this model		80 dB		
B	**Environment and temperature for the device**				
B1	Environment for the device	temperature for the device	-30°C ~ +70°C		
C	**Hardware Specification for the device**				
C1	Appearance of the device		Please see page 4		
C2	Dimensions (With cable connector)	Height (Unit: mm)	240mm		
		Width (Unit: mm)	122mm		
		Thickness (Unit: mm)	42mm		
C3	Shell Material		Aluminum alloy		
C4	Weight (without an antenna and a cable)		≦ 580 g		
C5	Display		Dot Matrix 120 x 31		
C6	Keys (Up/Down/Left/Right/Enter)		5 Function Key		
C7	Accessory	Omni Antenna	+2 dBi		
		Plane Antenna	+4 dBi		
		Log-periodic Antenna	+7 dBi		
		Yagi Antenna	+15 dBi		
		Cable 5m	Cable Loss ≦ 1.5dB		
		Cable 10m	Cable Loss ≦ 3dB		
		Antenna Holder	243mm * 60.30 mm * 25.14 mm		
		Divider	200mm * 142mm * 40mm		
		Backup Battery	5V @ Rechargeable Li Battery > 16000 mAh (support at least 12 Hours)		
C8	Certification	FCC	Part 90		
		Water and Dust Proof	IP 68		
D	**characteristic and specifications**				
D1	Gain		Users can set the Gain manually.		

PART D. Specification and Function of Unication Booster

■ Product number			Two-Way Signal Booster		
■ Model number supported by this product			VHF	UHF	700/800 MHz
D characteristic and specifications					
D2	Automatic Gain Control (AGC)		60dB		
D3	Noise Figure		<4dB		
D4	1dB Compression		38dBm		
D5	VSWR		1.5 : 1		
D6	Delay		≦ 5 μs		
D7	Max. Output Power		30dBm (1W)		
D8	RF Connectors		N Type Male 50 Ohm		
E Feature					
E2	LED Indicators	Power	Green		
		Alarm	RED		
E4	Backup Battery		5V @ Rechargeable Li Battery > 16000 mAh		
E5	Gain -adjustable		Users can set the Gain manually depends on the user's requirement.		
E6	Signal coverage expanding		Users can purchase the distributors and antennas to expand the signal coverage.		
E7	Monitor		DC Voltage Current Battery Voltage Input Power Output Power VSWR		
E8	Alarm		Over DC Voltage / Current Low Battery Over TX Input Power Over TX / RX Output Power		
E9	Query the status of the Signal Booster		1. Users can remotely monitor the status of the Signal Booster. 2. Connected with Wi-Fi, the data of the Signal Booster can be sent to the customer's PC or the APP on the smartphone.		

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