

DATASHEET

PART NO: 01191Q2

BWI900

Wireless Intercom



Full Duplex Audio With Up To 10 Users Talking Hands-Free Simultaneously



PTT Simplex Audio Mode User Selectable As Required



Crystal Clear Audio, Noise Cancellation Circuitry



Up To 1000m Communication Range Between Radios



AES 128bit Secured Individual Encryption Per Group



IP-65 Water-Resistant and Robust Design



Convenient Drop In & USB Charging



Replaceable Battery & Detachable Antenna



Compact & Light Rugged Construction

FEATURES

10 Users Talk Simultaneously

Unlimited number of users in a group, with up to 10 users able to talk simultaneously while all others listen.

Up to 1000m Transmission Range

2 antenna options are provided for varying range requirements

IP 65 Rugged and Waterproof

Heavy duty, robust & water-resistant design, including the detachable antenna.

Advanced CODEC Protocol

Super dynamic range of noise cancellation of more than 95dB, and minimal ambient audio interference.

Convenient Battery Charge System

This device has the ability to easily replace the battery. As well as the ability to individually charge the device via USB cable or drop into a charging 5-bay charger. Each battery provides ~12 hours of radio use.

Encryption

AES 128 bit encryption is provided with each radio. Each talk group is individually able to have separate encryption keys.



RADIO GATEWAY
(OPTIONAL)
073103



INCLUDED ACCESSORIES



Carry Case
with Foam Insert



0631235
BWI900 Full Dipole
0631236
BWI900 1/4 Wave Stub



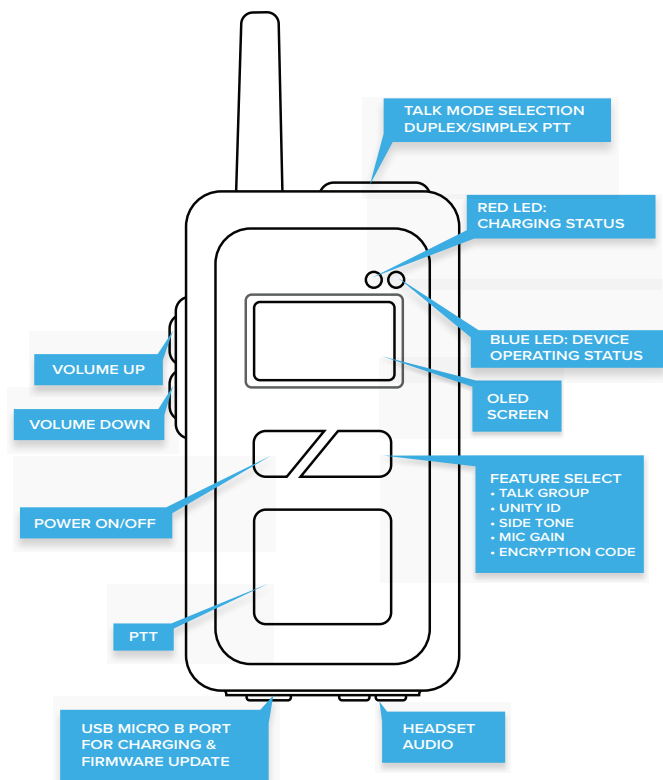
0620635C
USB Charging
Cable



06105109
Battery x 3

SPECIFICATIONS

Dimension	122.7 x 23.5 / 31.0 (+Belt Clip) x 67 mm
Weight	180 g including Battery
Frequency Range	ISM 915 MHz ~ 928 MHz
Modulation	GFSK with FHSS
Voice Codec	16 bit / 8 KHz
Tx Max Output Power	320 mW typical
Rx Sensitivity	-95 dBm
Audio Output	Max 3.0 V pp
Voice Latency	< 180 ms
Noise Cancellation	More than 95 dB
Encryption	AES 128 bit
Num. of Frequency Channels	26 Channels / Talk Groups
Channel Spacing	500 KHz
Battery Type	Li-ion Battery @ 3.7 V 2000 mA
Antenna	Detachable Type Helical Antenna
Talk Distance	1000 m typical
Frequency Response	50 Hz ~ 4 kHz
Maximum Operation Users	10 User including Master Device
Display	OLED display for Group Number, ID, Volume Level, Battery status, Operational Mode and Talk On/Off
LED Indication	RED LED; Charging Status, BLUE LED; Device Operating Status
Battery Operating Time	12 Hours typical
Battery Charging Time	3 to 5 Hours
Headset Input / Output	Dual 3.5 mm 4 pole jack, reversible cable - left and right cable entry options
Control Buttons	Side panel: Push button for Volume Up/Down, Front panel: Push buttons for Power On/Off and Talk On/Off select, Top panel; Push button for Mute On/Off
External Interfaces	4 Pole 3.5 mm Headphone Jack X 2 ea, Drop in Battery charge contacts, Micro USB Jack for Battery Charging & Firmware update



BLUETOOTH INTERFACE

BWI900 Optional Wireless Dongle will provide a wider extended range of accessories that can be used with the BWI900 solution. An integrated battery provides separate power for this interface. This solution will enhance the operational use case.



BWI900 RADIO GATEWAY

PART NO: 073103

FEATURES

- 3 Way Audio Bridge
- User Headset Support for RJ11 Plantronics or Benelec B4 Headsets
- Volume Control for User Headset
- Internal audio adjustments for various radio interfaces
- Dedicated PTT Button for Radio Network use with Indication LED
- Mechanical Support for BWI900 to securely clip on
- 4 Hole Mounting Pattern
- Suitable for 12V and 24V vehicles
- Charges and Powers BWI900 radio via micro-USB
- Audio Port for Mobile radio or Radio console



SPECIFICATIONS

DC Input	10-36V
Micro-USB Out (BWI900)	5V 1A(max)
B4 termination	Audio port for BWI900
Radio Interface	4 Wire E & M
Headset Interface	RJ11 or B4 headset port for BWI900 headsets. CANNOT BE USED SIMULTANEOUSLY
Charging Interface	Micro-USB
Weight	395 gram (without BWI900 & Mount)
Dimensions	120 h x 65 w x 40 d (mm)
Mount Support plate	AMPS Standard 4 Hole Mount
Supplied Mount	RAM Mount – GPSMAP 600

APPLICATIONS

The Benelec BWI900 Radio Gateway allows the BWI900 family of Wireless Intercoms to be interfaced to external radio systems providing direct access to the radio network from the wireless intercom users. This system has been created to be integrated to any mobile radio via 4W E&M. Interface leads have been developed for the Benelec BLP6000 series P25 mobiles and Motorola APX series P25 mobiles, other models can be provided on request.

The gateway provides direct use for a single user and creates the interface to the Wireless Intercom users. The audio from the radio network is also fed into the Wireless Intercom group. Dedicated gateway firmware has been developed for the BWI900 radio allowing the user to optionally PTT across the radio system remotely. A typical use case is a mobile radio in a vehicle being accessed by up to 10 users in the field, each with the ability to hear and respond over the mobile radio remotely. Typical coverage between the BWI900 radios is around 1Km.



BWI900 OPTIONAL HEADSETS



078421Y1

Single Ear Boom Mike
Light Weight Headset



07841B4

Throat Microphone
with Air Tube Earphone
and On/Off Switch



0784234B4

Rugged Light Single
Ear Headset



0784235B4

Dual Ear Light Heavy
Duty Headset



078604A

Bluetooth Bone
Conduction Headset



0785111B4

High Noise Headset with
Boom Microphone



078521H

Peltor™ WS™ ProTac
XPI Headset



07842B4

Ultra Light Headset



07835B4

Lightweight In Ear
Headset Inline



0784233B4

Tempest 2
Ultra Light Headset

BWI900 OPTIONAL ACCESSORIES



06105109

3.7vDC 2000mAh Li Ion
Replacement Battery



0620635C

Replacement USB
Charging Cable



0620635P

Programming Cable for
Firmware update



0991102

Lithium Polymer
Battery



090705420

Dual USB 4.8Amp 12
VDC Adaptor



0631235 BWI900 Full Dipole

0631236 BWI900 1/4 Wave Stub
Replacement Antennas



07892B4

Wireless Headset
Interface



0610525

Drop-In 5 Bay Rapid
Charger with 5 Batteries
Simultaneously



06107310

Leather Carry
Case