ONDAS NETWORKS NGBCP-1 Airlink BCP Radio User Guide

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Airlink BCP User and Installation Guide

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The Airlink BCP is a computer room communications package that enables the transmission of ATCS datagrams from the WCPS and WIU to the CC/FEP and vice-versa. It employs Ondas Networks' FullMAX technology and complies with part 15 of the FCC Rules and Innovation, Science and Economic Development Canada's license-exempt RSSs.

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference, and 2. This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Ondas Networks could void the user's authority to operate the equipment.

FCC Exposure Statement

This equipment complies with the FCC RF radiation exposure limits set forth for a controlled environment. This transmitter must follow the specific operating instructions for satisfying RF exposure compliance. The maximum gain antenna to be used with this equipment is 19.4 dBi. So equipped, this transmitter must be at least 15 meters from the user and must not be co-located or operating in conjunction with any other antenna or transmitter. The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved Ondas Networks may void the user's authority to operate the equipment.

ISED Canada

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions: 1. This device may not cause interference, and 2. This device must accept any interference, including interference that may cause undesired operation of the device. This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 15 meters between the radiator and your body.

System Overview

The Airlink BCP platform makes up a computer room communications package, including the radio and associated software/hardware that enables the transmission of ATCS datagrams from the WCPS and WIU to the CC/FEP and vice-versa. It will function as per the standards that are defined in S-9553.V1.0 & S- 9553A.V1.0. Airlink BCPs will interoperate with the existing Siemens WCP infrastructure. It provides a standard interface to the data network for a wide variety of user devices. Airlink BCP shall be used to perform the following general functions:

- Transmit and receive ATCS datagrams
- Interoperate with existing Siemens WCP infrastructure
- Provide a standard interface to the data network for user devices

Product Usage Instructions

Before powering on the Airlink BCP, ensure that there is a load on the RF connector. Failure to do so may damage the equipment.

When using the Airlink BCP, ensure that it is at least 15 meters away from your body to comply with radiation exposure limits. Do not co-locate or operate it in conjunction with any other antenna or transmitter.

Follow the specific operating instructions for satisfying RF exposure compliance when using this transmitter.

If any changes or modifications are made to the device that are not expressly approved by Ondas Networks, it may void the user's authority to operate the equipment.

FCC Compliance
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Ondas Networks could void the user's authority to operate the equipment.

FCC Exposure Statement
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The maximum gain antenna to be used with this equipment is 19.4 dBi. So equipped, this transmitter must be at least 15 meters from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Ondas Networks may void the user's authority to operate the equipment.

ISED Canada
Statement
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1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement
This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 15 meters between the radiator and your body.

Product System Overview

The Airlink BCP platform employs Ondas Networks' FullMAX technology.
The Airlink BCP makes up a computer room communications package, including the radio and associated software/hardware that enables the transmission of ATCS datagrams from the WCPS and WIU to the CC/FEP and vice-versa. It will function as per the standards that are defined in S-9553.V1.0 & S- 9553A.V1.0

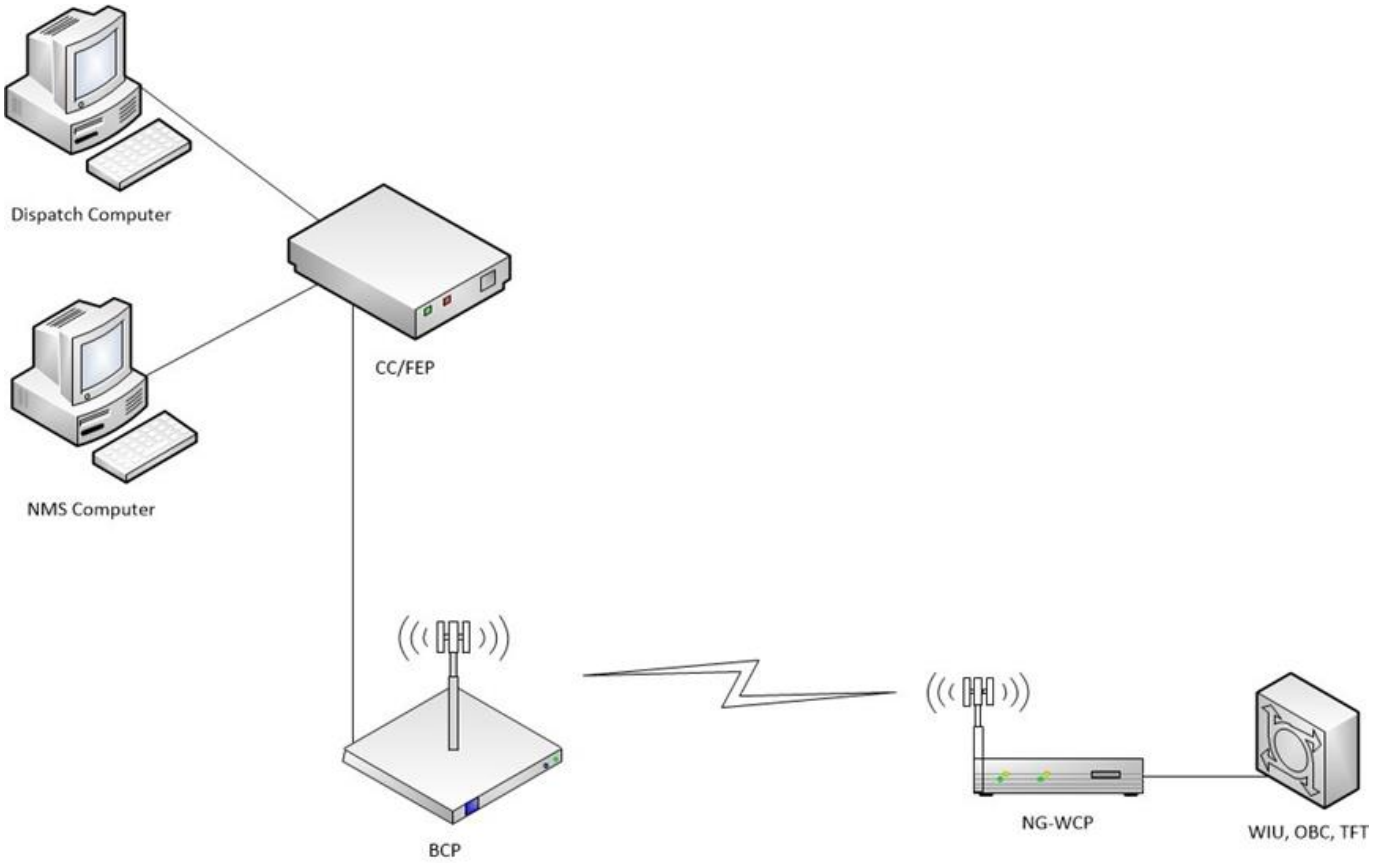

Figure 1 System Overview

Airlink BCPs will interoperate with the existing Siemens WCP infrastructure. It provides a standard interface to the data network for a wide variety of user devices.
Airlink BCP shall be used to perform the following general functions,

- Deliver ATCS messages to and receive messages from WCP via an RF link
- Deliver ATCS messages to and receive messages from a Network Management System in the office.

Physical Installation

Introduction

An Airlink BCP radio is comprised of software and hardware which is packaged in an indoor enclosure intended for mounting in a 19” rack.

Airlink BCP Enclosure

Specifications

Enclosure Material	Aluminum Alloy
Dimensions (W x D x H)	19” x 3.5” x 16” (483mm x 89mm x 407mm)
Operating Temperature	-40° F to 158° F (20° C to 25° C)
DC Input Power Range	36 to 75 VDC Nominal voltage 48 VDC
Power Consumption	No load : 100 watts @ 48 VDC Peak load : 150 watts @ 48 VDC

Product Overview

Figure 2 ; Airlink BCP Overview

Figure 3 : Airlink BCP Front Panel

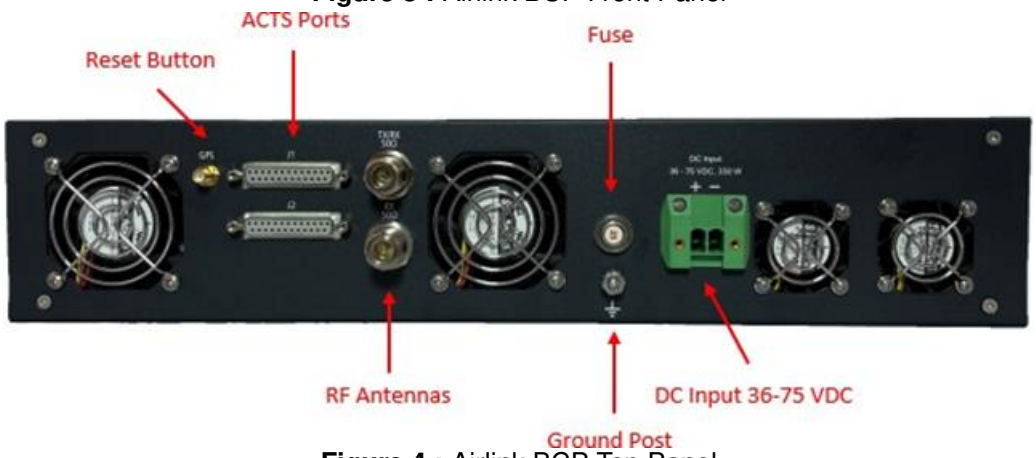

Figure 4 : Airlink BCP Top Panel

.**Connection Descriptions**

Connector	Application
GPS Antenna	SMA female connector for optional GPS antenna.
RF Out	50Ω N-Type female connector for RF output to Duplexer Transmit por t (High Pass)
RF In	50Ω N-Type female connector for RF input from Duplexer Receive po rt (Low Pass)
DC Input	DC power input 36 to 75 VDC. Warning: Ensure Correct Polarity
Ground Post	Connection to building ground
Fuse	25 amp Fuse
ATCS Ports	2 x DB25 female connectors for ATCS data
Ethernet	2 x RJ45 connector for Ethernet 10/100 Base-T interface
Console / Serial	RJ45 8-pin connector wired using the Cisco interface specification fo r serial access and console access via an adapter cable
Reset Button	Recessed access to system reset function
Push Buttons	Select and Enter functions for user interface

Mounting Guidelines

The Airlink BCP can be mounted in a standard built 19 inch rack.

Figure 5 : Airlink BCP Mounting Dimensions

System Operation

An Airlink BCP radio automatically starts operation when the DC power is connected. The unit conducts a series of self-tests, the results of which are shown on the front panel display module.

Figure 1 : Pushbuttons and Display

Status information can be accessed using the “Select” and “Enter” pushbuttons to scroll through and select various aspects of the system. The information is shown on the front panel display module.
Basic connectivity with the network can be verified using the Command Line Interface (CLI) via the console connection as shown below…

operator@AirlinkBCP-$ show BCP measurement report show BCP measurement report

————MEASUREMENT REPORT ——————-

- RSSI : -105 (dBm)
- Last Packet RSSI : Not available
- SNR : 7 (dB)
- CBB Rx Gain : 25 (dB)
- Configured Tx Power : 45 (dBm)
- CBB Temperature : 29 (C)
- RFM Temperature : 0 (C)
- RFM Detected Tx Power : 0 (dBm)
- RFM Detected Current Drawn : 0 (mA)

Documents / Resources

	ONDAS NETWORKS NGBCP-1 Airlink BCP Radio [pdf] User Guide X27-NGBCP-1, X27NGBCP1, ngbcp 1, NGBCP-1 Airlink BCP Radio, NGBCP-1, Airlink BCP Radio, BCP Radio