Honeywell

OneWireless WCX Transmitter
Professional Installation Guide

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1 DESIGNATION, SCOPE AND PREFACE

1.1 Designation

This document is valid for all WCX1 series transmitters, which feature a DSSS transmitter.

1.2 Scope

This document outlines professional installation requirements for the Honeywell WCX Transmitter for the Honeywell OneWireless Network. Professional installation is required to comply with certification agency and legal requirements. This document must be adhered to for all installations of the Honeywell OneWireless WCX Transmitters.

1.3 Preface

This manual covers professional installation of the Honeywell OneWireless WCX Transmitters. See the Getting Started with Honeywell OneWireless, Honeywell OneWireless Planning Guide and Honeywell OneWireless WCX User's Guides for general information on overall system implementation, configuration, and management of these devices.

Since these devices may require that the Transmit (TX) power limit settings for the higher gain antennas be manually adjusted, then the WCX is classified by the FCC as a device that must be professionally installed. To be in compliance with FCC requirements, the radio must be installed with one of approved antennas listed in this document.

1.4 Site Survey

It is assumed for the purposes of this document that a site survey has been performed and that the antenna types, cable lengths and lightning surge arrestors were appropriately selected per the results of that survey. Any changes to these items as a result of the actual installation of the WCX transmitters into the site may require that the TX power setting of the radio board needs to be adjusted from the factory setting in order to maintain agency approvals. See Sections 13 and 14 for more information.

1.5 Abbreviations & Definitions

The term **Honeywell WCX Transmitter** will be used to describe the composite unit which includes the Honeywell DSSS RF Module and all subassemblies housed within the WCX Transmitter enclosure.

Table 1 –Table of Abbreviations and Definitions

ACMA	Australian Communications and Media Authority
AD	Authentication Device
ATEX	Potentially Explosive Atmospheres Directive
AWG	American Wire Gauge
Co-located	Two or more radios transmitting simultaneously and with less than 20cm of separation distance.
COTS	Commercial Off-The-Shelf
CSA	Canadian Standards Association
DCS	Distributed Control System
DSSS	Direct Sequence Spread Spectrum
EMC	Electromagnetic Compatibility
ETSI	European Telecommunications Standards Institute
EU	European Union
FCC	Federal Communications Committee
FHSS	Frequency-Hopping Spread Spectrum
FSK	Frequency Shift Keying
GFSK	Gaussian Frequency Shift Keying
HLAI	High Level Analog Input
IC	Industry Canada
IEEE	Institute of Electrical and Electronics Engineers
IR	Infrared
IrDA	Infrared Data Association
LUI	Local User Interface
MPE	Maximum Permissible Exposure
MSG	Honeywell Model Selection Guide
MTBF	Mean Time Between Failures
NA	North America – United States of America and Canada
NEMA	National Electrical Manufacturers Association
PCB	Printed Circuit Board
PCI	Peripheral Components Interconnect
OQPSK	Offset Quadrature Phase-Shift Keying
RAM	Random Access Memory
RJ-45	Registered Jack-45
RPN	Reverse Polarity N-type
SQA	Supplier Quality Assurance
TNTC	Thailand National Telecommunications Commission
TX	Transmit
Wi-Fi	Wireless Local Area Network based on IEEE 802.11 Specifications
WNSIA	Wireless Network for Secure Industrial Application

2 FEDERAL COMMUNICATION COMMISSION (FCC)

2.1 FCC Compliance Statements

- This device complies with Part 15 of FCC Rules and Regulations. 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.

- 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 radiofrequency energy and, if not installed and used in accordance with these instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Intentional or unintentional changes or modifications must not be made to the WCX unless under the express consent of the party responsible for compliance. Any such modifications could void the user's authority to operate the equipment and will void the manufacturer's warranty.

3 INDUSTRY CANADA (IC)

3.1 IC Compliance Statements

- To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropic radiated power (EIRP) is not more than that permitted for successful communication.

- 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 Class A digital apparatus complies with Canadian ICES-003.

- French: Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

4 RF Safety Statement:

To comply with FCC's and Industry Canada's RF exposure requirements, the following antenna installation and device operating configurations must be satisfied.

- Remote Point-to-Multi-Point antenna(s) for this unit must be fixed and mounted on outdoor permanent structures with a separation distance between the antenna(s) of greater than 20cm and a separation distance of at least 20cm from all persons.

- Furthermore, when using integral antenna(s) the WCX unit must not be co-located with any other antenna or transmitter device and have a separation distance of at least 20cm from all persons.

5 FCC and Industry Canada (IC) Identification Numbers:

5.1 DSSS Radios

- Honeywell WCX Transmitter DSSS Radio Module Identification
  - Honeywell Identification for Intrinsically Safe RF Modules: **50025034-001**

- Honeywell WCX Transmitter DSSS Radio Limited Modular Approval
  - Federal Communication Commission Identification for Intrinsically Safe RF Modules: **S5750025034**
  - Industry Canada Identification for Intrinsically Safe RF Modules: **573I-50025034**

This information is shown on the label attached to each RF Module.

6 INTENDED COUNTRY USAGE

6.1 NORTH AMERICA

Country	ISO 3166 2 letter code
UNITED STATES	US
CANADA	CA

6.2 ASIA PACIFIC

Country	ISO 3166 2 letter code
AUSTRALIA	AU
THAILAND	TH
NEW ZEALAND	NZ

6.3 EUROPEAN UNION

Country	ISO 3166 2 letter code	Country	ISO 3166 2 letter code
Austria	AT	Latvia	LV
Belgium	BE	Liechtenstein	LI
Bulgaria	BG	Lithuania	LT
Cyprus	CY	Malta	MT
Czech Republic	CZ	Netherlands	NL
Denmark	DK	Norway	NO
Estonia	EE	Poland	PL
Finland	FI	Portugal	PT
France	FR	Romania	RO
Germany	DE	Slovakia	SK
Greece	GR	Slovenia	SI
Hungary	HU	Spain	ES
Iceland	IS	Sweden	SE
Ireland	IE	Switzerland	CH
Italy	IT	United Kingdom	BG

7 WCX TRANSMITTER GENERAL DESCRIPTION

7.1 Intended Use

The WCX Transmitter is a key component of the Honeywell *Wireless Network for Secure Industrial Application* (WNSIA). These transmitters are available for various sensor types including Digital Inputs, Temperature, High Level Analog Inputs, Pressure and Corrosion. The WCX Transmitter uses a low-powered FHSS or DSSS 2.4 GHz radio to communicate with Multinode and Gateway devices that are connected to a wired DCS network.

7.2 WCX Transmitter Diagrams

Figure 1 shows unit-level drawings of the WCX Transmitter antenna options.

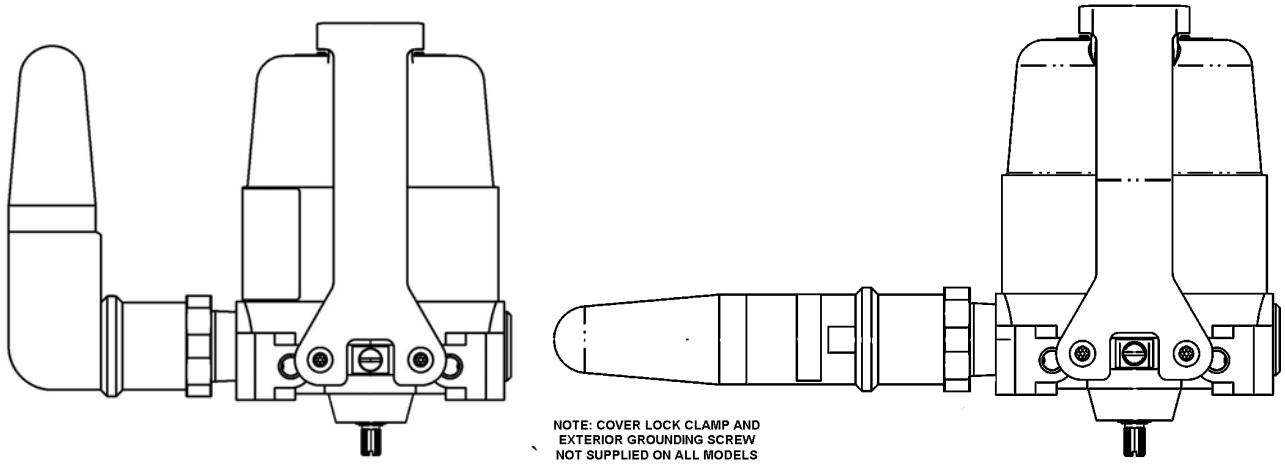


Figure 1 – WCX Transmitters showing Right-angle Integral Antenna (left) and Straight Integral Antenna (right) options

The WCX Transmitter is available with either an integral antenna or with a remote antenna. Remote antennas are attached via cables to a connector on the WCX. The integral antennas and/or the remote antenna connectors are not replaceable or changeable in the field.

8 PRODUCT SPECIFICATIONS

8.1 Direct Sequence Spread Spectrum (DSSS) Radio, 2.4 GHz

Warning! The WCX Transmitter must be Professionally Installed in accordance with the requirements specified in this document. See Section 10, for professional installation maximum TX power setting requirements. Only the specified TX power settings, antenna types and gains and cable lengths (attenuation) as outlined in this document are valid for WCX Transmitter installations.

Table 2 – Specifications of DSSS Radio Module in WCX Transmitter

Item	Specification
Wireless Standard	FCC 15.247 / IEEE 802.15.4 Direct Sequence Spread Spectrum (DSSS), 2.4 GHz
Data Rates and Modulation	Data Rate: 250 kbps Modulation: Offset Quadrature Phase-Shift Keying (OQPSK – DSSS)
Frequency Band	2,405 – 2,475 MHz
Module Transmit Power	Maximum: 20 dBm (Maximum transmit power will vary by channel)
Receive Sensitivity (typical)	-100 dBm

8.2 WCX Transmitter User Environment

Table 3 – User Environment Specifications for WCX Transmitter

Item	Specification
Operating Temperature:	**–40ºC to +70ºC (–40°F to +158°F)**
Storage Temperature:	**–40ºC to +85ºC (–40°F to +185°F)**
Operating Humidity:	**0 to 100% RH**

8.3 WCX Instrument Power Specifications

The WCX Transmitters operate from two (2) C-size 3.6V Lithium batteries. These are joined in series to produce a maximum voltage of +7.6 Vdc.

8.4 Weight

The weight of the complete WCX Transmitter units shall be 4.5 lbs (2.04 kg) maximum for series WCX1X1, and shall be 11.1 lbs (5.03 kg) maximum for series WCX1X2. This weight includes integral antenna.

8.5 Dimensions

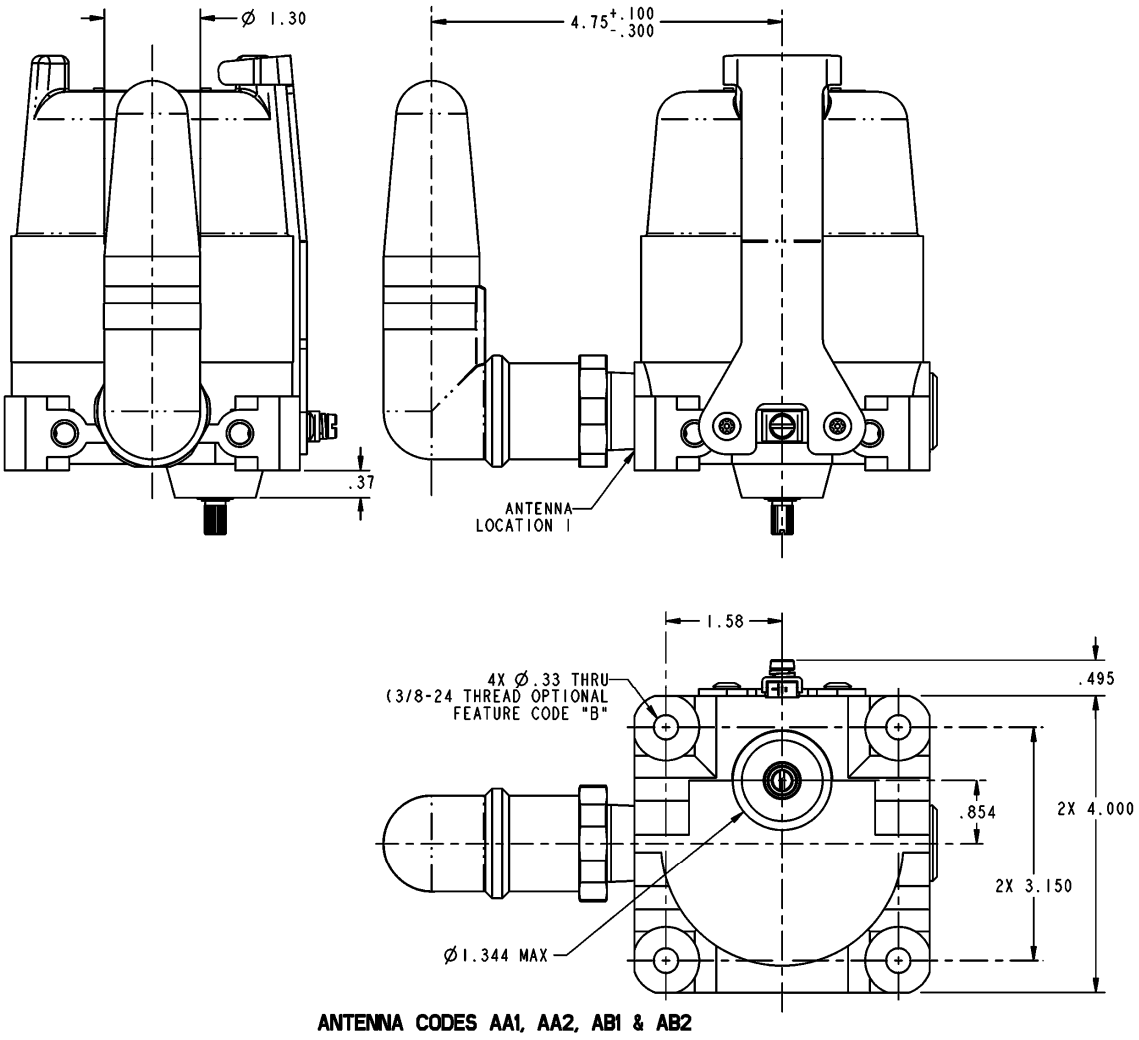


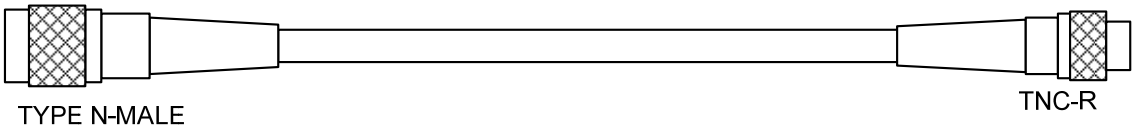
Figure 2 – Dimensions of the WCX Transmitter with Right-angle -2 dBi Integral Antenna Option

9 Cables

9.1 WCX Transmitter with RP-TNC Connectors Antenna or Lightning Arrestor Cables

Table 4 – Transmitter to Antenna or Lightning Arrestor Cable Specifications for WCX with RP-TNC connectors

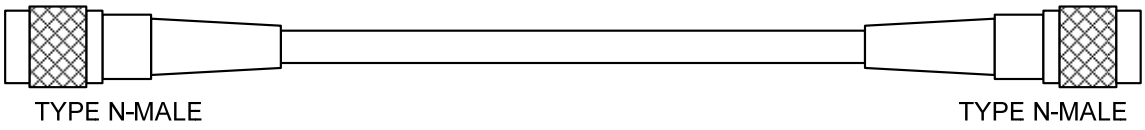
Honeywell Part Number	Cable Type	Connector Type	Frequency (GHz)	Length (m)	Loss (dB)
50018110-001	400 Series	RP-TNC to N male	2.4	1	1
50018110-003	400 Series	RP-TNC to N male	2.4	3	2
50018110-010	400 Series	RP-TNC to N male	2.4	10	3



9.2 WCX Transmitter with N Connectors Antenna or Lightning Arrestor Cables

Table 5 – Transmitter to Antenna or Lightning Arrestor Cable Specifications for WCX with N connectors

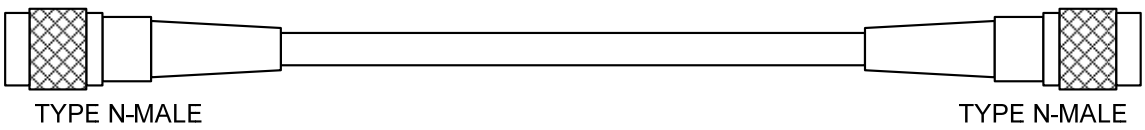
Honeywell Part Number	Cable Type	Connector Type	Frequency (GHz)	Length (m)	Loss (dB)
50018278-001	400 Series	N male to N male	2.4	1	1
50018278-003	400 Series	N male to N male	2.4	3	2
50018278-010	400 Series	N male to N male	2.4	10	3



9.3 Lightning Arrestor to Antenna Cables

Table 6 – Lightning Arrestor to Antenna Cable Specifications

Honeywell Part Number	Cable Type	Connector Type	Frequency (GHz)	Length (m)	Loss (dB)
50018278-001	400 Series	N male to N male	2.4	1	1
50018278-003	400 Series	N male to N male	2.4	3	2
50018278-010	400 Series	N male to N male	2.4	10	3



10 Antenna Lightning Arrestors

Table 7 – Lightning Arrestor Specifications for Remote Antenna(s)

Honeywell Part Number	Manufacturer	Manufacturer Part Number	Specification	Connector Type	Frequency (GHz)	Attenuation (dB)
50018279-090	ALTELECON	AL-NFNFB-9	50 ohm	N Female to N Female	0 – 3	0.4 (max)

The lightning surge arrestor must be properly grounded in order to perform per specification. Connecting to local ground using a No. 12 (4 mm^2) copper conductor is recommended. See the installation manual for other details.

LIGHTNING SURGE ARRESTOR
ALTELECON AL-NFNFB-9
50018279-090

11 Approved Antenna Types/Gains

Table 8 – Approved Antenna Types/Gains

Antenna Type	Antenna Application	Manufacturer	Manufacturer Part Number	Honeywell Part Number	Beam Width	Peak Gain (dBi)	Freq. (GHz)	Agency Compliance
Omni (integral)	**Point to Multi-Point**	**CENTURION**	**MAF94152**	**50016185-001**	**Omni**	**-2 [1]**	**2.4**	**FCC, IC, ETSI, ACMA**
Omni (integral)	**Point to Multi-Point**	**HYPERLINK**	**WHON511 – 0001**	**50029933-001**	**Omni**	**4**	**2.4**	**FCC, IC, ETSI, ACMA**
Omni (remote)	**Point to Multi-Point**	**HYPERLINK**	**HGV-2409U**	**50018414-001**	**Omni**	**8**	**2.4**	**FCC, IC, ETSI, ACMA**
Directional (remote)	**Point to Multi-Point**	**HYPERLINK**	**HG2414D**	**50018415-001**	**25°**	**14**	**2.4**	**FCC, IC, ETSI, ACMA**

Note:
1. The Centurion antenna listed in Table 8 has a specified gain of 2.2 dBi. Through EIRP measurements performed during antenna qualification testing, this antenna when installed in the Honeywell Radome and attached to the WCX Transmitter body in either the right-angle or straight integral antenna options has an actual gain of -2 dBi. This value is used in determining the maximum EIRP for Agency Compliance.

12 Equivalent Isotropically Radiated Power (EIRP)

In radio communication systems, Equivalent Isotropically Radiated Power (EIRP) or, alternatively, Effective Isotropic Radiated Power, is the amount of power that would have to be emitted by an isotropic antenna (that evenly distributes power in all directions and is a theoretical construct) to produce the peak power density observed in the direction of maximum antenna gain. EIRP can take into account the losses in transmission line and connectors and includes the gain of the antenna. The EIRP is often stated in terms of decibels over a reference power level that would be the power emitted by an isotropic radiator with an equivalent signal strength. The EIRP allows making comparisons between different emitters regardless of type, size or form. From the EIRP, and with knowledge of a real antenna's gain, it is possible to calculate real power and field strength values.

EIRP(dBm) = Radio TX Power (dBm) – Cable Loss (dB) + Antenna Gain(dBi)

Antenna gain is expressed relative to a (theoretical) isotropic reference antenna (dBi).

13 EIRP LIMITS

Table 9 – Maximum EIRP Limits for DSSS Radios

Antenna Type	Radio Usage / Application		Freq. (GHz)	Max. Ant. Gain (dBi)	Min. Cable Length (m)	Min. Cable Loss (dB)	Agency/Country	Max. Radio Output Power (dBm)	Max. EIRP (dBm)
-2 dBi Omni	Point to Multi-Point	Integral	2.4	-2	0	0	FCC, IC	20	18
							ETSI, ACMA, TNTC	14	12
							France 2400-2454 MHz	14	12
							France 2454-2482.5 MHz	Do not use [3]	---
4 dBi Omni	Point to Multi-Point	Integral	2.4	4	0	0	FCC, IC	20	24
							ETSI, ACMA, TNTC	16	20
							France 2400-2454 MHz	16	20
							France 2454-2482.5 MHz	Do not use [3]	---
8 dBi Omni	Point to Multi-Point	Remote	2.4	8	1	1	FCC, IC	18	25
							ETSI, ACMA, TNTC	5	12
							France 2400-2454 MHz	5	12
							France 2454-2482.5 MHz	Do not use [3]	---
14 dBi Directional	Point to Multi-Point	Remote	2.4	14	1	1	FCC, IC	14	25
							ETSI, ACMA, TNTC	-2	11
							France 2400-2454 MHz	-2	11
							France	Do not use [3]	---

							2454-2482.5 MHz		

Notes for Error! Reference source not found.**9:**

1. The values in the above tables have been determined through agency certification testing.
2. The following shall apply for antenna type, frequency range, application/usage and agency/country compliance:
   - Antenna gains above the maximum values shown shall not be used.
   - Cable length/loss below the minimum values shown shall not be used.
   - Maximum overall radio output power shown shall not be exceeded.
   - Maximum EIRP values shown above shall not be exceeded.
3. **France** restricts outdoor use to 10mW (10 dBm) EIRP in the frequency range of 2,454-2,483.5 MHz. Installations in France must limit EIRP to 10 dBm for operating modes utilizing frequencies in the range of 2,454 – 2,483.5MHz. For this reason, Honeywell does not recommend configuring frequency hopping modes that use this frequency range. ***For installations in France, use only the following OneWireless Frequency Hopping (FH) Mode Selections:*** *EU Channel #1, EU Channel #7, NA/EU Guard Bands and NA/EU Channel 3 (FH Mode selections #4, 5, 8 and 10).*
4. Industry Canada Compliance Statement: This device has been designed to operate with the antenna types listed in this document, and having a maximum gain of 14 dBi. Antenna types not included in this list or having a gain greater than 14 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Table 10 – DSSS Transmit Power Settings for the antennas and cable lengths specified above for FCC, IC, ETSI, ACMA and TNTC approvals

Description	Model Selection Guide Table III [1]	Cable(s) Length [2] (m)	TX Power Setting for ETSI/ACMA/TNTC [3] (dBm)	TX Power Setting for FCC/IC [3] (dBm)
2 dBi 90º Elbow Integral Antenna	V 1 0 0 or V 2 0 0	N/A	14	16
2 dBi Straight Integral Antenna	S 1 0 0 or S 2 0 0	N/A	14	16
4 dBi Integral Antenna	TBD	N/A	8	16
8 dBi Omnidirectional	M 1 0 0 1 or M 2 0 0 2	1	5	16
8 dBi Omnidirectional	M 1 0 0 3 or M 2 0 0 3	3	5	16
8 dBi Omnidirectional	M 1 0 1 0 or M 2 0 1 0	10	7	16
14 dBi directional	D 1 0 0 1 or D 2 0 0 1	1	-2	12
14 dBi directional	D 1 0 0 3 or D 2 0 0 3	3	-2	12
14 dBi directional	D 1 0 1 0 or D 2 0 1 0	10	0	14

Notes for 0:

1. The Model Number of any instrument may be found on the identification name plate located on the outside of the WCX transmitter. The values in the Cable(s) Length column represent those customer selections from Table III of the WCX Model Selection Guides.
2. In the Cable(s) Length column, entries of the form “X+X” indicate that there are two cables between the WCX and the remote antenna, with a lightning surge arrestor used to connect the two cables together. Entries of the form “X” mean that there is a single cable and that no lightning surge arrestor is used. For entries of the form “X+X”; the first value is the length of the cable between the instrument and the arrestor while the second value is the length of the cable between the arrestor and the remote antenna. All cables are 400 series types as specified in Table 4, 5 & 6 .
3. TX Power is set by the Honeywell factory producing the WCX to the values shown in the above tables. These factory values are determined by the customer’s model number selections in Table III for antenna type, cables and the lightning suppressor. If the cable lengths, antenna type or the use of a lightning surge arrestor are changed in the field away from the Model Number listed on the instrument, then the TX power setting should likewise be changed per the tables above to match the new antenna/cable/arrestor selections.
4. The TX Power Setting values given in 0 represent the power produced by the Radio circuit within the RF Module. These TX Power Setting values do not include antenna gains nor do they include losses caused by cables, connectors and lightning arrestors. When these external gains and losses are included, using the TX power values in 0 ensures that the EIRP will not exceed the maximum limits as given in **Error! Reference source not found.**9.

14 Setting TX Power

Warning! The WCX Transmitter must be Professionally Installed in accordance with the requirements specified in this document. Only the specified power settings, antenna types and gains and cable lengths (attenuation) as outlined in this document are valid for WCX Transmitter installations.

TX Power setting is accomplished with the Authentication Device when a special application (app) is installed. This app is considered to be Honeywell sensitive material and is made available only to the qualified Professional Installer.

When this app is installed in the AD, the WCX TX power setting, normally a read-only parameter, becomes a read/write parameter.

Using the virtual keyboard in the Device Local Configuration AD routine to manipulate the local user interface (LUI), navigate to the **TX_POWER** display in the **RADIO** setup group. The WCX as shipped from the factory should show a TX Power value consistent with those given in 0.

The TX Power adjustment feature is provided for Professional Installers to adjust the WCX TX power to match the specific selection of antenna and cables at the installation site and keep the total TX power under the regulatory thresholds.

15 Agency Label Information

The following information shall be clearly and permanently labeled on the WCX Transmitter unit:

15.1 External FCC/IC Labels

15.1.1 50016195-002 – Transmitters with DSSS Radios

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.
FCC ID: S5750025034 / IC: 573I-50025034

15.2 Internal FCC/IC Label

50021957-003

RF MOD 50025034-001
FCC ID: S5750025034
IC: 573I-50025034

16 RF Safety, Maximum Permissible Exposure (MPE) statement

To comply with FCC's and Industry Canada's RF exposure requirements, the following antenna installation and device operating configurations must be satisfied:

Remote antenna(s) for this unit must be fixed and mounted on outdoor permanent structures with a separation distance between the antenna(s) of at least 20 cm and a separation distance of at least 20 cm from all persons.

When using integral antenna(s) the WCX Transmitter unit must not be co-located with any other antenna or transmitter device and have a separation distance of at least 20 cm from all persons.

17 Agency Compliance

17.1 Radio and EMC Certifications

17.1.1 Federal Communication Commission (FCC)

- Specification: FCC Part 15.247 Subpart B for unintentional radiators
- Specification: FCC Part 15.247 Subpart C for intentional radiators

17.1.2 Industry Canada (IC)

- Method: RSS-210, Issue 7
- RSS-Gen, Issue 2
- ICES-003, Issue 4

17.1.3 European Telecommunications Standards Institute (ETSI)

- Emissions Specification and Method: EN 300 328 V1.7.1
- Emissions Spec and Method: EN 301 893 V1.3.1
- Immunity Specification: EN 301 489-17 V2.1.1
- Immunity Method: EN 301 489-1 V1.8.1
- Product Standard: EN61326-1, 2006 (Industrial Locations

17.1.4 Australian communications and media authority (ACMA)

- Specification: AS NZS 4771-2000

17.1.5 Thailand National Telecommunications Commission (TNTC)

- Specification: **เรื่อง เครื่องวิทยุคมนาคมและสถานีวิทยุคมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต** (Specification for non-licensed Radio and Radio Station Telecommunications)

17.2 Product Safety Agency Certifications

17.2.1 Canadian Standards Association (CSA)

ANSI/ISA S82.02.01 (61010-1) CSA C22.2 No. 1010-1, ANSI/UL 61010-1, Safety Standard for Electrical Equipment for Measurement, Control and Laboratory Use – Part 1: General Requirements

C22.2 No. 0, General Requirements - Canadian Electrical Code, Part II

C22.2 No. 25, Enclosures for Use in Class II, Group E, F & G Hazardous Locations

C22.2 No. 94, Special Purpose Enclosures, Industrial Products

C22.2 No. 14, Industrial Control Equipment, Industrial Products

C22.2 No. 30, Explosion Proof Enclosures for Use in Hazardous Locations, Industrial Products

C22.2 No. 213, Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

E60079-0, Electrical Apparatus for Explosive Gas Atmospheres, Part 0: General Requirements

E60079-1, Electrical Apparatus for Explosive Gas Atmospheres, Part 1: Flameproof “d”

E60079-15, Electrical Apparatus for Explosive Gas Atmospheres, Part 15: Electrical Apparatus With Type of Protection "n"

- Temperature code: T4 (135°C) based on the maximum specified ambient of 85°C.

17.2.2 European ATEX Certification (ATEX)

EN 60079-0, Electrical Apparatus for Explosive Gas Atmospheres, Part 0: General Requirements

EN 60079-1, Electrical Apparatus for Explosive Gas Atmospheres, Part 1: Flameproof Enclosures “d”

EN 60079-15, Electrical Apparatus for Explosive Gas Atmospheres, Part 15: Electrical Apparatus with Type of Protection “n”

EN 50281, Electrical Apparatus for Use in the Presence of Combustible Dust

EN 50284, Special Requirements for Construction, Test and Marking of Electrical Apparatus of Equipment Group II, Category 1G

The temperature code for the WCX Transmitter shall not exceed T4 (135°C) based on the maximum specified ambient of 85°C.

17.3 European Union Certification (CE-mark)

- Compliance with:
  - R&TTE Directive 1999/5/EC
  - EMC Directive 2004/108/EC
  - LVD Directive 2006/95/EC

- ATEX Directive 94/9/EC

18 Reference Documents

Table 11 – Reference documents

1 Getting Started with Honeywell OneWireless
2 Honeywell OneWireless Planning Guide
3 Honeywell WCX User's Manuals
4 Radio Antenna: A Primer White Paper
5 Honeywell OneWireless System Administration Guide
6 Honeywell OneWireless Field Network Dictionary
7 OneWireless Builder Parameter Reference
8 OneWireless Builder User's Guide
9 OneWireless WCX Model Selection Guides