

# FLEX 2.0 - Over-the-Air Public Safety Centric Fiber DAS (758-869 MHz)

HONBDA Series

## Product Features

- Specifically designed for 700 MHz and 800 MHz, LMR and Public Safety Applications
- No need of “Front End BDA” or “POI”, reduced infrastructure cost.
- Supports Over-the-Air (OTA) operation – Direct Donor antenna Connection to Master.
- **FLEX 2.0\*** Enhanced Scalability and Flexibility – Remote Unit connection count capability up to 56 using Expansion Units.
- New improved **FLEX 2.0\*** user-friendly Graphic User Interface.
- New **FLEX 2.0\*** Alarming Features. All alarms of all the Remotes and BBUs of the System are available at the Master Unit.
- Enhanced **FLEX 2.0\*** Redundancy Features (optional).
- Inclusion of **FLEX 2.0\*** Multiple AGC modes to allow extra Uplink Output Power Per Channel.
- Remote Units equipped with Uplink Squelch and AGC per Channel and Time-Slot (support for P25PH2) to provide truly reduced UL Noise contribution and Near-Far effect mitigation.
- Upon expansion of an existing system, no need to recommission the previously installed sections.
- Isolation Measurement and Isolation Detection in a per Remote Basis. Upon oscillation detection, only the affected area will be turned off.
- Software programmable channel selective or band selective operation, suitable for highly congested RF environments.
- Centralized operation form Master Unit. Single point of access.
- IFC 2015, 2018, 2021 Edition Standard.
- NFPA 72 2013 Edition, NFPA 1221 2016 2019 Edition Standard.
- SGS C-US Compliant.
- UL2524 3rd Edition 2024 Listing with SGS, Nationally Recognized Testing Laboratory (NRTL) approved by OSHA for UL2524.



Remote Unit

Master Unit

## Applications

- For P25 Ph1, P25 Ph2, DMR, TETRA and Conventional Systems.
- Tunnels, buildings, subways, airports, stadiums, building campuses, etc.

## Specification

## Value

Fiber-Optic	Single mode
WDM	Yes (one fiber to connect Master to Expansion, and one fiber per Remote)
Optical Wavelengths	1270 / 1330 nm
Operational Bands	PS700, Band14, PS800
Number of Channel Filters	64 channels per band + 4 Bandwidth Adjustable per band
Available Channel Filter BW	150 KHz, 100KHz, 75KHz, 62.5KHz, 50KHz, 37.5KHz, 25KHz & 12.5KHz
Group Delay	Channel Selective 150KHz, 11.5µS
	Channel Selective 100KHz, 13.5µS
	Channel Selective 75KHz, 16.0µS
	Channel Selective 62.5KHz, 18.0µS
	Channel Selective 50KHz, 21.0µS
	Channel Selective 37.5KHz, 25.5µS
	Channel Selective 25KHz, 35.0µS
	Channel Selective 12.5KHz, 61.50µS
	or Band selective: 3.5 to 6.5µS, depending on BWA
Supported Fiber Loss	20dBo max
Optical Connectors	LC/UPC
Optical Return Loss	>45dB
RF Input/Output Impedance	50 Ω
RF Connectors	N(f)

\* A **FLEX 2.0** Master Unit is any PSC DAS Master Unit with firmware version equal or greater than **[SW: 5.00]**.

\*\* A **FLEX 2.0** Remote Unit is any PSC DAS Remote Unit with firmware version equal or greater than **[SW: 3.00]**.

Overall Gain (Master + Remote)	85dB regardless fiber length
Noise Figure	<9dB

### Master Unit Electrical and Mechanical Specifications

### Value

DL Manual Attenuator	30dB in 1dB steps
Maximum UL Output Power	+24 dBm per band
UL IM and Spurious Generation	< -13dBm
UL Manual Attenuator	30dB in 1dB steps
Max Operational DL Input Power	-35dBm
Number of Optical Ports	8 (for Remote Unit and Expansion Unit connection)
Power Supply	110VAC 60Hz or +24VDC (see table at the end of this document)
Power Consumption (Master Unit)	70W
Housing	NEMA4, UL50 Certified
Environmental	EN 300 019 4.1
Temperature range	-22° to +131° F • -30° to +55° C
Humidity	<95% non-condensing
Dimensions	See table at the end of this document
MTBF	50.000 hours

### Remote Unit Electrical and Mechanical Specifications

### Value

Composite Output Power, DL	+33 dBm per band
DL IMD and Spurious Generation	< -13 dBm
Number of Optical Ports	1 as standard, 2 optional for redundancy
UL Maximum Input Power	0dBm
UL Noise Reduction	UL squelch per channel and time-slot, programmable
DL and UL Manual Attenuator	20dB in 1 dB steps
Power Supply	110/220VAC 50/60Hz
Power Consumption	70W
DC Supply	Optional, 24VDC (see table at the end of this document)
Housing	NEMA4, UL50 Certified
Environmental	EN 300 019 4.1
Temperature Range	-22° to +131° F • -30° to +55° C
Humidity	< 95% non-condensing
Dimension and Weight	See table at the end of this document
MTBF	50.000 hours

### Control and Alarms

### Value

Alarms Report	<p>Alarms of all the Remotes and BBUs of the System available at the Master Unit.</p> <p>At Master Unit via USB: Master Unit, Expansion Unit and Remote Unit Status.</p> <p>At Master Unit via Web browser: Master Unit, Expansion Unit and Remote Unit Status.</p> <p>At Master Unit via SNMP: Master Unit, Expansion Unit and Remote Unit Status.</p> <p>At Master Unit, alarms of Master Unit, Expansion Unit and Remote Unit Status can be reported via local Dry Contact or via serial connection to Next Gen BBU.</p> <p>At Remote Unit via USB: Remote Unit Status</p> <p>At Remote Unit, alarms of Remote Unit can be reported via local Dry Contact or via serial connection to Next Gen BBU.</p>
Master Unit Configuration	<p>Local: USB or Ethernet (Web browser)</p> <p>Remotely: SNMP or Web browser form Master Unit</p>

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# HONBDA Series

Normative	Value
Standards	ITU T G 652 EN60825-1
FCC	FCC, CFR 47, Part 15, Subpart B, Class A digital devices
FCC ID Master	P3TDH7S-3A / P3TDH7S-3B
FCC ID Remote	P3TDH7S-4A / P3TDH7S-4B

Model	Type	Power Supply	Dimensions	Weight
HONBDA-DH7S-A-M	Master 700MHz + FirstNet + 800MHz - Class A	AC & DC	27.2 x 20 x 9 in (690.88 x 508 x 228.6 mm)	59.52 lbs. (27 Kg)
HONBDA-A-7S33AR1	REMOTE PS700 & FirstNet & PS800 - 1 Fiber Optic Port	AC	17.7 X 17.3 X 5.1 in (449.58 x 439.2 x 129.4 mm)	52.9 lbs. (24 Kg)
HONBDA-D-7S33AR1	REMOTE PS700 & FirstNet & PS800 - 1 Fiber Optic Port	DC	17.7 X 17.3 X 5.1 in (449.58 x 439.2 x 129.4 mm)	52.9 lbs. (24 Kg)
HONBDA-A-7S33AR2	REMOTE PS700 & FirstNet & PS800 - 2 Fiber Optic Port	AC	17.7 X 17.3 X 5.1 in (449.58 x 439.2 x 129.4 mm)	52.9 lbs. (24 Kg)
HONBDA-D-7S33AR2	REMOTE PS700 & FirstNet & PS800 - 2 Fiber Optic Port	DC	17.7 X 17.3 X 5.1 in (449.58 x 439.2 x 129.4 mm)	52.9 lbs. (24 Kg)

## Ordering Information

**HONBDA-DH7S-A-M:**PS 700 + 800MHz Public Safety Centric DAS Master, incl Band 14, class A & B, 0.25W /+24dBm UL, AC & DC.NFPA compliant, UL2524 2nd Edition HONEYWELL PSC Fiber DAS

**HONBDA-A-7S33AR1:**PS 700 + 800MHz Public Safety Centric DAS Remote, including Band 14, class A, 2W/+33dBm per band, AC.NFPA compliant, UL2524 2nd Edition HONEYWELL PSC Fiber DAS

**HONBDA-D-7S33AR1:**PS 700 + 800MHz Public Safety Centric DAS Remote, including Band 14, class A, 2W/+33dBm per band, DC.NFPA compliant, UL2524 2nd Edition HONEYWELL PSC Fiber DAS

**HONBDA-A-7S33AR2:** Fiber DAS. OTA PUBLIC SAFETY CENTRIC DAS REMOTE. 758-869MHz. PS800 + PS700 + FIRSTNET, Dual Band, +33dBm per band, 64 Channels per band, 2 optical port, AC ,UL2524 2nd Edition Listed HONEYWELL Fiber DAS

**HONBDA-D-7S33AR2:** Fiber DAS. OTA PUBLIC SAFETY CENTRIC DAS REMOTE. 758-869MHz. PS800 + PS700 + FIRSTNET, Dual Band, +33dBm per band, 64 Channels per band, 2 optical port, DC ,UL2524 2nd Edition Listed HONEYWELL Fiber DAS

## Standards and Codes

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- FCC Certified
- IC Certified
- FC 2015, 2018, 2021 Edition Standard
- ISO 9001 PECB Certified
- NFPA 72 2019 Edition, NFPA 1225 2022 Edition Standard
- NFPA 1221, 2016, 2019 Edition Standard
- ROHS compliant
- UL2524 3rd Edition 2024 Listing with SGS, Nationally Recognized Testing Laboratory (NRTL) approved by OSHA for UL2524

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

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