FLEX 2.0 – Over-the-Air Public Safety Centric Fiber DAS – Low Band (406-439 MHz / 380-400 MHz)

HONBDA-xx-L1
HONBDA-xx-L2

Product Features

- Specifically designed for VHF and UHF, 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.



Master Unit



Remote Unit

- 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.

Applications

- For P25 Phase I & P25 Phase II, DMR, TETRA, TETRAPOL, NXDN and Conventional Systems
- Tunnels, buildings, subways, airports, stadiums, building campuses, etc

Specification	Value
Fiber Optic	Single mode
WDM	Yes
Optical Wavelengths	1270 / 1330 nm
Operational Bands	406 - 439 MHz
Number of Channel Filters	64 channels + 4 Bandwidth Adjustable per band
Available Channel Filter BW	100kHz, 75kHz, 62.5kHz, 50kHz, 37.5kHz, 25kHz & 12.5kHz
Group Delay	Channel Selective 100 kHz, 14.3iS Channel Selective 75 kHz, 16.9iS Channel Selective 62.5 kHz, 18.8iS Channel Selective 50 kHz, 21.6iS Channel Selective 37.5 kHz, 26.3iS Channel Selective 25 kHz, 35.8iS Channel Selective 12.5 kHz, 63iS or Band selective: 3.5 to 6.5iS, depending on BWA
Supported Fiber Loss	20dBo max
Optical Connectors	LC/UPC
Optical Return Loss	>45dB

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RF Input/Output Impedance	50 Ω
RF Connectors	N(f)
Overall Gain (Master + Remote)	85 dB regardless fiber length
Noise Figure	<9 dB

Master Unit Electrical and Mechanical Specifications	Value
DL Manual Attenuator	30dB in 1dB steps
Maximum UL Output Power	+24 dBm
UL IM and Spurious Generation	< -13 dBm
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	110 VAC OR +24VDC (see table at the end of this document)
Power Consumption	70 W
Housing	NEMA 4, UL 50 Certified
Temperature Range	-22º to +131º F • -30º to +55º C
Humidity	<95% non condensing
Dimensions	30in x 24in x 14in (762mm x 610mm x 335mm)
Weight	210lbs (95kgs)
MTBF	50,000 hours

Remote Unit Electrical and Mechanical Specifications	Value
Composite Output Power, DL	+ 37 dBm
DL IMD and Spurious Generation	< -13dBc
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
Manual Attenuator	20dB in 1 dB steps +/- 0.5 dB
Power Supply	110VAC OR +24VDC (see table at the end of this document)
Power Consumption	140 W
Housing	NEMA 4, UL 50 Certified
Temperature Range	-22º to +131º F • -30º to +55º C
Humidity	< 95% non condensing
Dimension	34.17in x 24.94in x 18in (868.15mm x 633.6mm x 459.45mm)
Weight	187.3lbs (84kgs)
MTBF	50.000 hours

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

Normative	Value
Standards	ITU T G 652 EN60825-1
FCC	FCC, CFR 47, Part 15, Subpart B, Class A digital devices
FCC ID Master (406.1-439MHz)	P3TDH14-12A / P3TDH14-12B
FCC ID Remote (406.1-439MHz)	P3TDH14-11A / P3TDH14-11B

L2 Models

Model	Band	BW Duplexer	Type	Power Supply
HONBDA-DRMA-L2	UHF 406-439 MHz	NON DUPLEXED	MASTER	AC&DC
HONBDA-MA-L2NH	UHF 406-439 MHz	NON DUPLEXED	MASTER	AC
HONBDA-MA-L25H	UHF 406-439 MHz	5MHz BW	MASTER	AC
HONBDA-MA-L22H	UHF 406-439 MHz	2MHz BW	MASTER	AC
HONBDA-MD-L2NH	UHF 406-439 MHz	NON DUPLEXED	MASTER	DC
HONBDA-MD-L25H	UHF 406-439 MHz	5MHz BW	MASTER	DC
HONBDA-MD-L22H	UHF 406-439 MHz	2MHz BW	MASTER	DC
HONBDA-R1A-L2NH	UHF 406-439 MHz	NON DUPLEXED	REMOTE 1FO	AC
HONBDA-R1A-L25H	UHF 406-439 MHz	5MHz BW	REMOTE 1FO	AC
HONBDA-R1A-L22H	UHF 406-439 MHz	2MHz BW	REMOTE 1FO	AC
HONBDA-R1D-L2NH	UHF 406-439 MHz	NON DUPLEXED	REMOTE 1FO	DC
HONBDA-R1D-L25H	UHF 406-439 MHz	5MHz BW	REMOTE 1FO	DC
HONBDA-R1D-L22H	UHF 406-439 MHz	2MHz BW	REMOTE 1FO	DC
HONBDA-R2A-L2NH	UHF 406-439 MHz	NON DUPLEXED	REMOTE 2FO	AC
HONBDA-R2A-L25H	UHF 406-439 MHz	5MHz BW	REMOTE 2FO	AC
HONBDA-R2A-L22H	UHF 406-439 MHz	2MHz BW	REMOTE 2FO	AC
HONBDA-R2D-L2NH	UHF 406-439 MHz	NON DUPLEXED	REMOTE 2FO	DC
HONBDA-R2D-L25H	UHF 406-439 MHz	5MHz BW	REMOTE 2FO	DC
HONBDA-R2D-L22H	UHF 406-439 MHz	2MHz BW	REMOTE 2FO	DC

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L1 Models

MODEL	BAND	BW DUPLEXER	TYPE	POWER SUPPLY
HONBDA-MA-L1NH	UHF 380-400MHz	NON DUPLEXED	MASTER	AC
HONBDA-MA-L15H	UHF 380-400MHz	5MHz BW	MASTER	AC
HONBDA-R1A-L1NH	UHF 380-400MHz	NON DUPLEXED	REMOTE 1FO	AC
HONBDA-R1A-L15H	UHF 380-400MHz	5MHz BW	REMOTE 1FO	AC
HONBDA-R1D-L1NH	UHF 380-400MHz	NON DUPLEXED	REMOTE 1FO	DC
HONBDA-R1D-L15H	UHF 380-400MHz	5MHz BW	REMOTE 1FO	DC
HONBDA-R2A-L1NH	UHF 380-400MHz	NON DUPLEXED	REMOTE 1FO	AC
HONBDA-R2A-L15H	UHF 380-400MHz	5MHz BW	REMOTE 1FO	AC
HONBDA-R2D-L1NH	UHF 380-400MHz	NON DUPLEXED	REMOTE 1FO	DC
HONBDA-R2D-L15H	UHF 380-400MHz	5MHz BW	REMOTE 1FO	DC

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.
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