

# MultiTech Conduit<sup>®</sup>AP

Access Point for LoRa<sup>®</sup> Technology US915 for North America

# LoRa Alliance

. .

**MultiTech Conduit**<sup>\*</sup> **AP** harnesses the power of the LoRaWAN<sup>\*</sup> protocol to provide in-building penetration and connectivity to thousands of IoT assets. Easy to deploy, the Conduit AP it extends LoRa<sup>\*</sup> connectivity in commercial buildings like hotels, convention centers, offices and retail facilities providing coverage in difficult to reach areas cell tower or rooftop deployments may not penetrate.

MULTITECHO

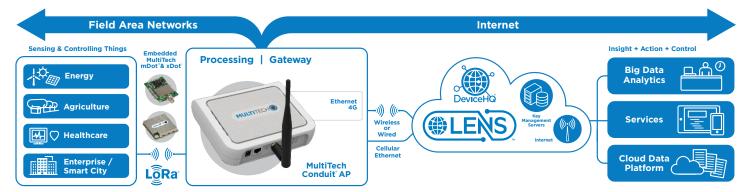
The Conduit AP offers a development environment for developers and IT professionals alike. mPower<sup>™</sup> Edge Intelligence features an easy-to-use graphical interface set-up and includes a built-in LoRa Network Server and Packet Forwarder to connect locally clustered assets on a private LoRaWAN network directly to your choice of IoT data platforms. The mPower extends complex processing to the edge to reduce upstream communication and operational costs. The Conduit AP provides Ethernet or optional 4G-LTE IP backhaul.

## BENEFITS

- Provide improved service level agreements for LoRa
- Affordable LoRa connectivity in or around commercial buildings
- Ethernet and 4G-LTE interfaces for primary or secondary WAN
- Quick & easy to deploy
- Carrier approved

### FEATURES

- Ethernet RJ-45 10/100 BaseT for IP backhaul
- Optional 4G-LTE IP backhaul
- Models available with external LoRa antenna for improved performance
- Built-in LoRa Network Server and Packet Forwarder



www.multitech.com/conduitap

# EDGE INTELLIGENCE

Programmable embedded software provides enhanced security and enables task execution at the edge for reduced latency and cost optimization.

mPower<sup>™</sup> Edge Intelligence is a new embedded software offering, building on its popular application enablement platform, to deliver programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions.

mPower is the unification and evolution of well-established MultiTech smart router and gateway firmware platforms. In addition to ongoing support of the current feature-sets, gateway customers can enjoy the additional security features currently available on the MultiConnect<sup>\*</sup> rCell 100 Series.

mPower simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency; control network and cloud services costs, and ensure core functionality – even in instances when network connectivity may not be available.

In response to evolving customer security requirements, mPower incorporates a host of new security features including signed firmware validation, enhanced firewall and VPN settings, secure authentication and more.

mPower software specifications can be found here.

# Easily Deploy and Manage Assets Via DeviceHQ\*

MultiTech DeviceHQ is the M2M industry's first IoT online application store to enable customers



to easily deploy and scale applications to their connected devices. Drag-and-drop tools easily allow customers to create and manage applications for in-field assets. The DeviceHQ application store gives your business the power to innovate operations management and create value-added services.

# **CONNECTING THE "THINGS"**

## MultiTech mDot<sup>™</sup> & xDot<sup>∗</sup>

MultiTech mDot and xDot are secure, regulatorycertified, Arm®Mbed™ programmable, Iowpower RF modules, providing long-range, low bit rate IoT data connectivity to sensors and actuators.



The mDot and xDot are LoRaWAN compliant,

providing bi-directional data communication up to 10 miles line-of-sight and 2-3 miles in buildings, using the global sub-GHz ISM radio bands in North America, Europe, and the APAC regions.

The mDot was the first Arm Mbed platform listed on mbed.org that was deployment ready. The mDot supports applications written and compiled in the mbed online environment using developer friendly libraries. Decision making and control can be done at the edge, reducing the need to optimize RF performance and implement complex IoT middleware.

mDots and xDots bring intelligence, reduced complexity and a lower overall bill of material to the edge of the network while supporting a variety of interfaces to connect just about any battery-powered "thing".



## Benefits

- "Low Touch" asset deployment reduces costs, complexity and time
- Easily scales to your network needs
- Browse and download a wide variety of custom applications tailored to your business needs
- Reduce truck-rolls using remote performance management and asset updates

# HARDWARE SPECIFICATIONS

Operator         Other         Other         Other         Other         Other           Performance         4G-LTE Category 1         No Fallback         No Fallback Fallback Fallback fallback fallback fallback f	Models	MTCAP-LNA3-915	MTCAP-LNA3-915	MTCAP-LSP3-915	MTCAP-915
Fallback       3G + HSPA +       No Fallback       No Fallback       No Fallback         Frequency Band (MHz)       4G: B2(1900), B4(AWS1700), B5(250), B12/7100, B5(250), B12/7100, B5(250), B12/7100, B12/700       4G: B2(1900), B4(AWS1700, B12/700, B12		AT&T	Verizon	Sprint	Non-Cellular
Arc         B2(1900) B5(780700) 3G: B2(1900), B5(8500) 3G: B2(1900), B5(8500) 3G: B2(1900), B5(8500) B12(700), B1(10,10,10,10,10,10,10,10,10,10,10,10,10,1	Performance	4G-LTE Category 1			
Frequency Band (MHz)         Bd(AWS1700), BS(B3C)         Bd(AWS1700), Bd(B12700), BS(B2C)         Bd(AWS1700), BS(B2C), B12(700), BS(B2C)         MMC           Packet Data (LTE FDD)         Up to 10 Mbps downlink, Up to 5 Mbps uplink         Input Voltage         5 VDC 2.5A input provided by 100-240 VAC 50/60 Hz 0.4A external adaptor           Processor & Memory         ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets • 400 MHz         • 460 Data Cache         • 256 MB Flash Memory           LGRA Specifications         - Cash Frequency Band         - US315         - US315           LGRA Channel Plan         - US315         - Cannel Capacity         - Cannel Capacity         - VEX           LGRA Provenous         - 2.5mm, 5 Volt power jack         - VEX         - VEX           Ethernet         R-400 ND2         - VEX         - VEX           Power         2.5mm, 5 Volt power jack         N/A           Ethernet         RJ45 Ethernet jack (10/100 port)         - VEX           SIM         - Callar reverse polarity female SMA Cellular: No antenna connection, internal to chassis         N/A           Antennas (-041A Models)         - Callar reverse polarity female SMA Cellular: No antenna connection, internal only         - VEX           Physical Description         - VEX-ABS (polycarbonate-ABS)         - VEX         - VEX           Dimensions (LL w W H)         - 1	Fallback	3G - HSPA+	No Fallback	No Fallback	1
Input Voltage       5 VDC 2.5A input provided by 100-240 VAC 50/60 Hz 0.4A external adaptor         Processor & Memory       ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets - 16K Data Cache - 16K Data Cache - 16K Data Cache - 16K Instruction Cache       - 256 MB Flash Memory - 256 MB Flash Memory         LoRa Specifications       USP15       - 256 MB Flash Memory       - 256 MB Flash Memory         LoRa Specifications       USP15	Frequency Band (MHz)	B4(AW\$1700), B5(850), B12/B13(700)	B4(AW\$1700),	B4(ÁWS1700), B5/B26(850),	N/A
ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets + 400 MHz + 400 MHz + 400 MHz + 400 MHz + 100	Packet Data (LTE FDD)	Up to 10 N	1bps downlink, Up to 5 Mbps	uplink	
Processor & Memory	Input Voltage	5 VDC 2.5A input provided by 100-240 VAC 50/60 Hz 0.4A external adaptor			adaptor
LoRa Frequency Band915 MHzLoRa Channel PlanUS915Channel Capacity8-channels (half-duplex)LoRa Power Output24.6 dBm maximum output power before antennaConnectorsPower2.5mm, 5 Volt power jackEthernetSiMOwer2.5mm, 5 Volt power jackEthernet jack (10/100 port)SiMOwer colspan="2">SiMOwer colspan="2">ConnectorsPower2.5mm, 5 Volt power jackEthernet jack (10/100 port)SiMOwer colspan="2">ConnectorsConnectorsPowerConnectorsSiMConnectors <td cols<="" td=""><td>Processor &amp; Memory</td><td colspan="3">• 400 MHz • 16K Data Cache • 256 MB Flash Memory</td></td>	<td>Processor &amp; Memory</td> <td colspan="3">• 400 MHz • 16K Data Cache • 256 MB Flash Memory</td>	Processor & Memory	• 400 MHz • 16K Data Cache • 256 MB Flash Memory		
LoRa Channel PlanUS915Channel Capacity8-channels (half-duplex)LoRa Power Output24.6 dBm maximum output power before antennaConnectorsPower2.5mm, 5 Volt power jackEthernetRJ45 Ethernet jack (10/100 port)SIM3FF Micro SIMAntennas (-001A Models)No antenna connections. All antennas are internal to chassisAntennas (-001A Models)LORa: reverse polarity female SMA Cellular: No antenna connection, internal onlyPhysical DescriptionLORa: reverse polarity female SMA (Cellular: No antenna connection, internal onlyPhysical Description14 (3) kg (lb)Chassis TypePC-ABS (polycame-ABS)Environmental0° to +70°COperating Temperature0° to +70°COperating Temperature0° to +70°CCertificationsUS: FCC Part 15 Class B. Canada: ICES-003 Class BEMC ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRel Mobility, TelusVerizon </td <td>LoRa Specifications</td> <td></td> <td></td> <td></td> <td></td>	LoRa Specifications				
Channel Capacity8-channels (half-duplex)LoRa Power Output24.6 dBm maximum output power before antennaConnectors2.5mm, 5 Volt power jackPower2.5mm, 5 Volt power jack (10/100 port)SIM $2.5mm, 5 Volt power jack (10/100 port)$ SIM $3FF Micro SIM$ Antennas (-001A Models)No antenna connections. All antennas are internal to chassisAntennas (-041A Models) $Cellular: No antenna connection, internal onlyPhysical DescriptionLORa: reverse polarity female SMACellular: No antenna connection, internal onlyPhysical Description165 (6.5) \times 135 (5.3) \times 36 (1.4) mm (in)Weight14.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)Environmental0^{\circ} to +70^{\circ}COperating Temperature0^{\circ} to +70^{\circ}COperating Temperature0^{\circ} to +70^{\circ}COr to +85^{\circ} CRelative Humidity200^{\circ} to 900, non-condensingCertificationsEMCEMC ComplianceUS: FCC Part 15 Class B. ICES-003 Class BRadio ComplianceUL_STPCRB, AT&TBell Mobility, TelusNetworkPending: T-Mobile, Rogers,Bell Mobility, TelusNetworkMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop$	LoRa Frequency Band	915 MHz			
LoRa Power Output24.6 dBm maximum output power before antennaConnectorsPower2.5mm, 5 Volt power jackEthernet7.5mm, 5 Volt power jackEthernet8.75mm, 5 Volt power jackSIM3.75mm, 5 Volt power jackAntennas (-001A Models)Volt power jackAntennas (-01A Models)Volt power jackPhysical DescriptionVolt power polarity female SMA Cellular: No antenna connections, internal onlyPhysical DescriptionIDimensions (L x W x H)Weight1.65 (6.5) x 135 (5.3) x 36 (1.4) mm (in)Weight1.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)EnvironmentalOperating TemperatureO° to +70°CO° to +65°CO° to +70°Corage TemperatureO° to +70°CO° to +65°CO° to +70°CCellular:Volt power jackEther temperatureVolt power jackCellular:Volt power jackCellular: <th colsp<="" td=""><td>LoRa Channel Plan</td><td colspan="3">US915</td></th>	<td>LoRa Channel Plan</td> <td colspan="3">US915</td>	LoRa Channel Plan	US915		
Connectors         Power         2.5mm, 5 Volt power jack           Ethernet         RJ45 Ethernet jack (10/100 port)         N/A           SIM $3FF$ Micro SIM         N/A           Antennas (-001A Models)         No antenna connections. All antennas are internal to chassis         Antennas (-041A Models)           Antennas (-041A Models) $LoRa: reverse polarity female SMA Cellular. No antenna connection, internal only         Physical Description           Physical Description         LoRa: reverse polarity female SMA Cellular. No antenna connection, internal only         Physical Description           Dimensions (L x W x H)         165 (6.5) \times 135 (5.3) \times 36 (1.4) mm (in)         Physical Description           Physical Description         14.4 (3) kg (lb)         Chassis Type         0^{\circ} to +70^{\circ}C           Chassis Type         PC-ABS (polycarbonate-ABS) 0^{\circ} to +70^{\circ}C 0^{\circ} to +65^{\circ}C           Storage Temperature         0^{\circ} to +70^{\circ}C 0^{\circ} to +65^{\circ}C 0^{\circ} to +70^{\circ}C           Certifications         20\% to 90\%, non-condensing Certifications Certifications = 20\% to 90\%, con-condensing           EMC Compliance         US: FCC Part 15 Class B. Canada: ICES-003 Class B         Radio Compliance         US: FCC Part 22,24,27 / Canada: ISED           Safety         UL/cUL 60950^{-1} 2nd Ed N/A$	Channel Capacity	8-channels (half-duplex)			
Power2.5mm, 5 Volt power jackEthernetRJ45 Ethernet jack (10/100 port)SIM $\bigcirc$ 3FF Micro SIMN/AAntennas (-001A Models) $\bigcirc$ antenna connections. All antennas are internal to chassisAntennas (-041A Models) $\bigcirc$ Cellular: No antenna connection, internal onlyPhysical Description $\bigcirc$ Cellular: No antenna connection, internal onlyDimensions (L x W x H) $\bigcirc$ 165 (6.5) x 135 (5.3) x 36 (1.4) mm (in)Weight1.4 (3) kg (lb)Chassis Type $\bigcirc$ PC-ABS (polycarborte-ABS)Environmental $\bigcirc$ 0° to +70°COperating Temperature0° to +70°COperating Temperature0° to +70°CCertifications $\bigcirc$ 20% to 90%, non-condensingCertifications $\bigcirc$ Si FCC Part 15 Class B. Canada: ICES-003 Class BEnd Compliance $\bigcup$ Si FCC Part 15 Class B. Canada: ICES-003 Class BRadio Compliance $\bigcup$ Si FCC Part 22,24,27 / Canada: ISEDSafety $\bigcup$ PTCRB, AT&TNetworkPPCRB, AT&TMIL-STD-8HOG: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop	LoRa Power Output	24.6 dBm maximum output power before antenna			
EthernetRJ45 Ethernet jack (10/100 port)SIM $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ SIM $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Antennas (-001A Models) $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Antennas (-041A Models) $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Physical Description $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Dimensions (L x W x H) $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Weight1.4 (3) kg (1b) $\end{tabular}$ $\end{tabular}$ Chassis Type $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Diperating Temperature0° to +70°C0° to +70°C0° to +65°C0° to +70°CCorperating Temperature0° to +70°C0° to +70°C0° to +65°C0° to +70°CStorage Temperature0° to +70°C0° to +85° C0° to +70°C0° to +55° CRelative Humidity20% to 90%, non-condensingCertificationsEMC ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceSafetyUL/cUL 60950-1 2nd Ed.N/ANetwork $\end{tabular}$ $\end{tabular}$ $\end{tabular}$ Mul-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling DropOutsiteMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop	Connectors				
SIM 3FF Micro SIM // A Antennas (-001A Models) No antenna connections. All antennas are internal to chassis Antennas (-041A Models) LORa: reverse polarity female SMA Cellular: No antenna connection, internal only Physical Description Dimensions (L x W x H) 165 (6.5) x 135 (5.3) x 36 (1.4) mm (in) Weight 14 (3) kg (lb) Chassis Type PC-ABS (polycarbonate-ABS) Environmental Operating Temperature 0° to +70°C 0° to +70°C 0° to +65°C 0° to +70° Storage Temperature 0° to +70°C 0° to +70°C 0° to +65°° 0° to +70° Storage Temperature 0° to +70°C 0° to 90%, non-condensing Certifications EMC Compliance US: FCC Part 15 Class B. Canada: ICES-003 Class B Radio Compliance US: FCC Part 22,24,27 / Canada: ISED Safety UL/cUL 60950-1 2nd Ed. Network PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus MIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Dr	Power	2.5mm, 5 Volt power jack			
Antennas (-001A Models)No antenna connections. All antennas are internal to chassisAntennas (-041A Models) $\Box Ra: reverse polarity female SMA Cellular: No antenna connection, internal onlyPhysical DescriptionDimensions (L x W x H)165 (6.5) \times 135 (5.3) \times 36 (1.4) mm (in)Weight1.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)Environmental0^{\circ} to +70^{\circ}C0^{\circ} to +65^{\circ}COperating Temperature0^{\circ} to +70^{\circ}C0^{\circ} to +85^{\circ} CRelative Humidity20\% to 90\%, non-condensingCertificationsUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 15 Class B. Canada: ISEDSafetyUL/cUL 6095-12nd Ed.NetworkPTCRB, AT&T Pending: T-Mobile, Rogers, BHI Mobility, TellusMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop$	Ethernet	RJ45 Ethernet jack (10/100 port)			
Antennas (-041A Models)LoRa: reverse polarity female SMA Cellular: No antenna connection, internal onlyPhysical DescriptionImage: Cellular: No antenna connection, internal onlyDimensions (L x W x H)165 (6.5) x 135 (5.3) x 36 (1.4) mm (in)Weight1.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)EnvironmentalO° to +70°C0° to +65°C0° to +70°COperating TemperatureO° to +70°C0° to +65°C0° to +70°CCertificationsEMC ComplianceEMC ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUL/cUL 60950-1 2nd Ed.SafetyUL/cUL 60950-1 2nd Ed.NetworkPTCRB, AT&T Bell Mobility. Tellus Bell Mobility. Tellus Bell Mobility. TellusSprintN/A	SIM	3FF Micro SIM N/A			N/A
Atterning (-04) A Models)       Cellular: No antenna connection, internal only         Physical Description         Dimensions (L x W x H)       165 (6.5) x 135 (5.3) x 36 (1.4) mm (in)         Weight       1.4 (3) kg (lb)         Chassis Type       PC-ABS (polycarbonate-ABS)         Environmental       PC-ABS (polycarbonate-ABS)         Operating Temperature       0° to +70°C       0° to +65°C       0° to +70°         Storage Temperature       0° to +70°C       0° to +85° C       0° to +70°         Relative Humidity       20% to 90%, non-condensing       Certifications         EMC Compliance       US: FCC Part 15 Class B. Canada: ICES-003 Class B       Radio Compliance         Radio Compliance       US: FCC Part 22,24,27 / Canada: ISED       Safety         Network       PTCRB, AT&T       Verizon       Sprint       N/A	Antennas (-001A Models)	No antenna connections. All antennas are internal to chassis			5
Dimensions (L × W × H)165 (6.5) × 135 (5.3) × 36 (1.4) mm (in)Weight1.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)EnvironmentalOperating Temperature0° to +70°C0° to +70°C0° to +65°C0° to +70°COperating Temperature0° to +70°C0° to +65°C0° to +70°CCertificationsUSE FCC Part 15 Class B. Canada: ICES-003 Class BEddio ComplianceUL/cUL 6095-1 2nd Ed.SafetyUL/cUL 6095-1 2nd Ed.NetworkPPCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, TelusSprintN/AOutlityMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Dr	Antennas (-041A Models)				
Weight1.4 (3) kg (lb)Chassis TypePC-ABS (polycarbonate-ABS)EnvironmentalOperating Temperature0° to +70°COperating Temperature0° to +70°CStorage Temperature0° to +70°CCertificationsEMC ComplianceEMC ComplianceSafetyUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceSafetyNetworkPTCRB, AT&T Bell Mobility, TelusMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Dr	Physical Description				
Chassis Type       PC-ABS (polycarbonate-ABS)         Environmental       O° to +70°C       O° to +70°C       O° to +65°C       O° to +70°C         Operating Temperature       O° to +70°C       O° to +70°C       O° to +65°C       O° to +70°C         Storage Temperature       O° to +70°C       20% to 90%, non-condensing       O° to +70°C       O° to +85° C         Relative Humidity       20% to 90%, non-condensing       Certifications       EMC Compliance       US: FCC Part 15 Class B. Canada: ICES-003 Class B         Radio Compliance       US: FCC Part 15 Class B. Canada: ICES-003 Class B       EMC Compliance       US: FCC Part 22,24,27 / Canada: ISED         Safety       UL/cUL 60950-1 2nd Ed.       UL/cUL 60950-1 2nd Ed.       N/A         Network       Pending: T-Mobile, Rogers, Bell Mobility, Telus       Verizon       Sprint       N/A	Dimensions (L x W x H)	165 (6.5) x 135 (5.3) x 36 (1.4) mm (in)			
Environmental         Operating Temperature       0° to +70°C       0° to +65°C       0° to +70°C         Storage Temperature       -40° to +85° C       -40° to +85° C       Relative Humidity         Relative Humidity       20% to 90%, non-condensing       Certifications         Certifications       EMC Compliance       US: FCC Part 15 Class B. Canada: ICES-003 Class B         Radio Compliance       US: FCC Part 22,24,27 / Canada: ISED         Safety       UL/cUL 60950-1 2nd Ed.         Network       PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus       Verizon       Sprint       N/A	Weight	1.4 (3) kg (lb)			
Operating Temperature0° to +70°C0° to +70°C0° to +65°C0° to +70°CStorage Temperature-40° to +85° CRelative Humidity20% to 90%, non-condensingCertificationsEMC ComplianceUS: FCC Part 15 Class B. Canada: ICES-003 Class BRadio ComplianceUS: FCC Part 22,24,27 / Canada: ISEDSafetyUL/cUL 60950-1 2nd Ed.NetworkPTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, TelusVerizonSprintMIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop	Chassis Type		PC-ABS (polyca	rbonate-ABS)	
Storage Temperature     -40° to +85° C       Relative Humidity     20% to 90%, non-condensing       Certifications     20% to 90%, non-condensing       EMC Compliance     US: FCC Part 15 Class B. Canada: ICES-003 Class B       Radio Compliance     US: FCC Part 15 Class B. Canada: ISED       Safety     UL/cUL 60950-1 2nd Ed.       Network     PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus     Verizon     Sprint     N/A	Environmental				
Relative Humidity       20% to 90%, non-condensing         Certifications         EMC Compliance         Radio Compliance         US: FCC Part 15 Class B. Canada: ICES-003 Class B         Radio Compliance         Safety         UL/CUL 60950-1 2nd Ed.         Network         PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus         Verizon       Sprint         N/A         Outality	Operating Temperature	0° to +70°C	0° to +70°C	0° to +65°C	0° to +70°C
Certifications         EMC Compliance         EMC Compliance         Radio Compliance         Safety         US: FCC Part 15 Class B. Canada: ICES-003 Class B         Safety         UL/cUL 60950-1 2nd Ed.         Network         PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus         Verizon       Sprint         N/A         Outality	Storage Temperature		-40° to +	+85° C	
EMC Compliance       US: FCC Part 15 Class B. Canada: ICES-003 Class B         Radio Compliance       US: FCC Part 22,24,27 / Canada: ISED         Safety       UL/cUL 60950-1 2nd Ed.         Safety       Network         PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus       Verizon       Sprint       N/A         Outputty       MIL-STD-810G: High Temp, Low Temp, Random Vibration.       SAE J1455: Transit Drop & Handling Drop	Relative Humidity		20% to 90%, no	n-condensing	
Radio Compliance       US: FCC Part 22,24,27 / Canada: ISED         Safety       UL/cUL 60950-1 2nd Ed.         Network       PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus       Verizon       Sprint       N/A         Outality       MIL-STD-810G: High Temp, Low Temp, Random Vibration.       SAE J1455: Transit Drop & Handling Drop	Certifications				
Safety     UL/cUL 60950-1 2nd Ed.       Network     PTCRB, AT&T Pending: T-Mobile, Rogers, Bell Mobility, Telus     Verizon     Sprint     N/A       Outplity     MIL-STD-810G: High Temp, Low Temp, Random Vibration.     SAE J1455: Transit Drop & Handling Drop	EMC Compliance		US: FCC Part 15 Class B. Ca	anada: ICES-003 Class B	
PTCRB, AT&T     PTCRB, AT&T       Pending: T-Mobile, Rogers, Bell Mobility, Telus     Verizon       Outplity     MIL-STD-810G: High Temp, Low Temp, Random Vibration.	Radio Compliance	US: FCC Part 22,24,27 / Canada: ISED			
Network         Pending: T-Mobile, Rogers, Bell Mobility, Telus         Verizon         Sprint         N/A           Outplity         MIL-STD-810G: High Temp, Low Temp, Random Vibration.         SAE J1455: Transit Drop & Handling Drop	Safety	UL/cUL 60950-1 2nd Ed.			
Quality MIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Dro Random Vibration, Swept-Sine Vibration. IEC68-2-1: Cold Temp. IEC68-2-2: Dry Heat	Network	Pending: T-Mobile, Rogers,	Verizon	Sprint	N/A
	Quality	MIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop, Random Vibration, Swept-Sine Vibration. IEC68-2-1: Cold Temp. IEC68-2-2: Dry Heat			

\* Operating temperature excluding power supply. Power supply UL listed at 40C.

# SOFTWARE SPECIFICATIONS

#### mPower

- Enhanced closed-source embedded Linux platform
- Node-RED application
   development environment
- Graphical web interface for configuration and management
- Seamless integration with DeviceHQ,
- MultiTech's device management platform
- LoRa network server
- LoRa packet forwarder

- Cellular connection management
- Dynamic DNS
- Secure firewall with NAT and port forwarding
- Static Routing
- Open VPN
- Remote Access
- Configuration backup and restore
- Easy firmware upgrade through
- graphical web interface
- System and network statistics

- Tool chain for creating custom images
- WAN connection via Ethernet or cellular
- Cellular PPP, DHCP client and server
- Firewall configuration via iptables
- Language support: Python, C, C++, Javascript
- Package upgrade support: Java, Perl, Ruby, Mono C#
- opkg package manager with limited package feed
- Basic router functionality with built-in Linux

## **ORDERING INFORMATION**

#### MultiTech Conduit<sup>®</sup> AP 4G LTE Models

Model	Description	Region
MTCAP-LNA3-915-041A	LTE Cat 1 mPower Programmable Access Point 8-channel, 915 MHz w/external LoRa antenna and US Accessory Kit* (AT&T & Verizon)	NAM
MTCAP-LNA3-915-001A	LTE Cat 1 mPower Programmable Access Point 8-channel, 915 MHz w/internal LoRa antenna and US Accessory Kit* (AT&T & Verizon)	NAM
MTCAP-LSP3-915-041A	LTE Cat 1 mPower Programmable Access Point 8-channel, 915 MHz w/external LoRa antenna and US Accessory Kit* (Sprint)	US

#### MultiTech Conduit' AP Ethernet Only Models

Model	Description	Region
MTCAP-915-041A	Ethernet Only mPower Programmable Access Point 8-channel, 915 MHz w/ external LoRa antenna and US Accessory Kit*	NAM
MTCAP-915-001A	Ethernet Only mPower Programmable Access Point 8-channel, 915 MHz w/ internal LoRa antenna and US Accessory Kit*	NAM

\* US Accessory Kit includes power supply with NAM blade, 6 ft. RJ45 Ethernet cable, external LoRa antenna (-041 models only), mounting bracket and Quick Start Guide.

# **RECOMMENDED ACCESSORIES**

#### MultiTech mDot<sup>™</sup>

Model	Description	Region
MTDOT-915-X1-SMA	915 MHz X1 LoRa SMA	NAM
MTDOT-915-X1P-SMA	915 MHz X1 LoRa SMA w/Programming Header	NAM
MTDOT-915-X1-UFL	915 MHz X1 LoRa UFL	NAM
MTDOT-915-M1-UFL	915 MHz SMT LoRa UFL	NAM
MTDOT-915-M1-TRC	915 MHz SMT LoRa RF Pad	NAM

#### MultiTech xDot\*

Model	Description	Region
MTXDOT-NA1-A00-1	915 MHz LoRa Module UFL/TRC (Single Pack)	NAM

Go to www.multitech.com for detailed product model numbers.

Produced in the U.S. of U.S. and non-U.S. components. Features and specifications are subject to change without notice.

The LoRa® name and associated logo are trademarks of Semtech Corporation or its subsidiaries. Trademarks and Registered Trademarks: MultiTech and the MultiTech logo, MultiConnect, Conduit, mDot, xDot, mPower, DeviceHQ: Multi-Tech Systems, Inc. All other products and technologies are the trademarks or registered trademarks of their respective holders.

#### Services & Warranty

MultiTech's comprehensive Support Services programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through smooth installations, troubleshoot issues and help you with configurations.

#### **Installation Support**

MultiTech's Installation Support Service delivers priority service with the ability to work one-on-one with an experienced MultiTech technical support engineer, to guide you through the installation process for our products.

#### **Technical Support Services**

At MultiTech, we're committed to providing you personalized attention and quality service while providing you a quick response to your product support needs. We have several options of support for you to choose from.

For additional information on Support Services as well as other service offerings, please contact your MultiTech representative or visit www.multitech.com/support.go



#### World Headquarters

Multi-Tech Systems, Inc. 2205 Woodale Drive Mounds View, MN 55112 U.S.A. Tel: 763-785-3500 Toll-Free: 800-328-9717 Email: sales@multitech.com www.multitech.com

#### **EMEA Headquarters**

Multi-Tech Systems (EMEA) Strata House 264-270 Bath Road Harlington UB3 5JJ United Kingdom Tel: +(44) 118 959 7774 Email: sales@multitech.co.uk www.multitech.co.uk



# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Gateways category:

Click to view products by Multitech manufacturer:

Other Similar products are found below :

 WISE-3310-D100L1E
 2702887
 MTCDT-LEU1-247A-915-EU-GB-AU
 MTCAP-LEU1-868-001A
 MTCDTIP-LEU1-275L-868
 MTCDTIP-LEU1-266A-915

 LEU1-266A-915
 MTCDT-LEU1-246A-868-EU-GB
 SGX5150020US
 SGX5150225US
 X2-HMU-EM-B
 MTCDT-LAP3-246A-915-AU

 MTCAP-LNA3-915-041A
 PW205030002B
 PW205010002B
 PW205020002B
 100-1156-001IA
 UPS-EDGE-X70864-U01
 4345
 ADAM 

 6717-A
 EKI-1224CI-CE
 ESRP-PCS-WISE710
 ICR-3201
 ICR-3201-W
 ICR-3211B
 ICR-3241W
 WISE-3610ILS-51A1N
 WISE 

 6610-E100-A
 WISE-6610-N100-A
 WISE-710
 AKX00016
 CSENSE-A300-N
 CSENSE-A700
 X2E-Z3C-H2-W
 X2E-Z3C-W1-A
 X4-Z11-E 

 W
 XGI-20CZ7-E00-W0
 XGI-2PCZ7-EL1-W0
 ReliaGATE 10-12-65
 BLG840F
 BL833AF
 BWG832F
 BWG832X
 BWG840F

 PKG900000001385
 AGS102-I50-6COM
 455-00028
 450-00011-K1
 K1