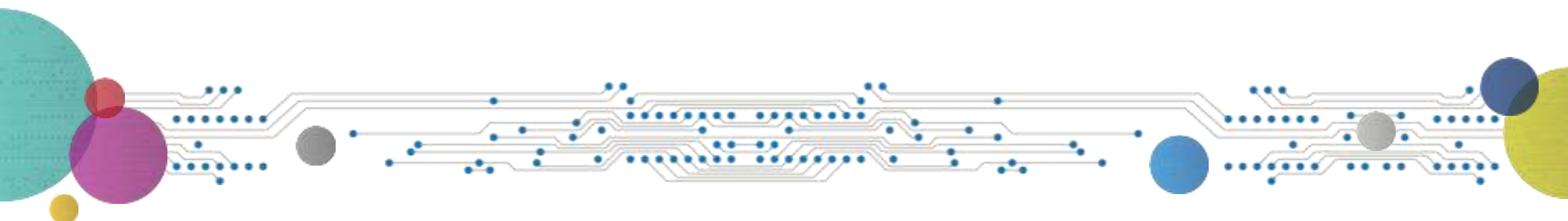




AgTech IoT

July 25, 2017



MultiTech designs, develops and manufactures communications equipment for the industrial Internet of Things – Connecting physical assets to business processes to deliver enhanced value



The Preferred Provider for Innovative
Connected Technology Destined to Transform our World

Target Vertical Markets



Agriculture

- Animal Husbandry
- Crop Production
- Water Management
- Remote Monitoring
- Security

Feed
the World



Energy

- Smart Grid
- Car Charging Stations
- Oil and Gas production and transportation
- Water/Wastewater

Sustain
the Planet



Healthcare

- Home & Mobile
- Tele-Monitoring
- Assisted Living

Save
Lives



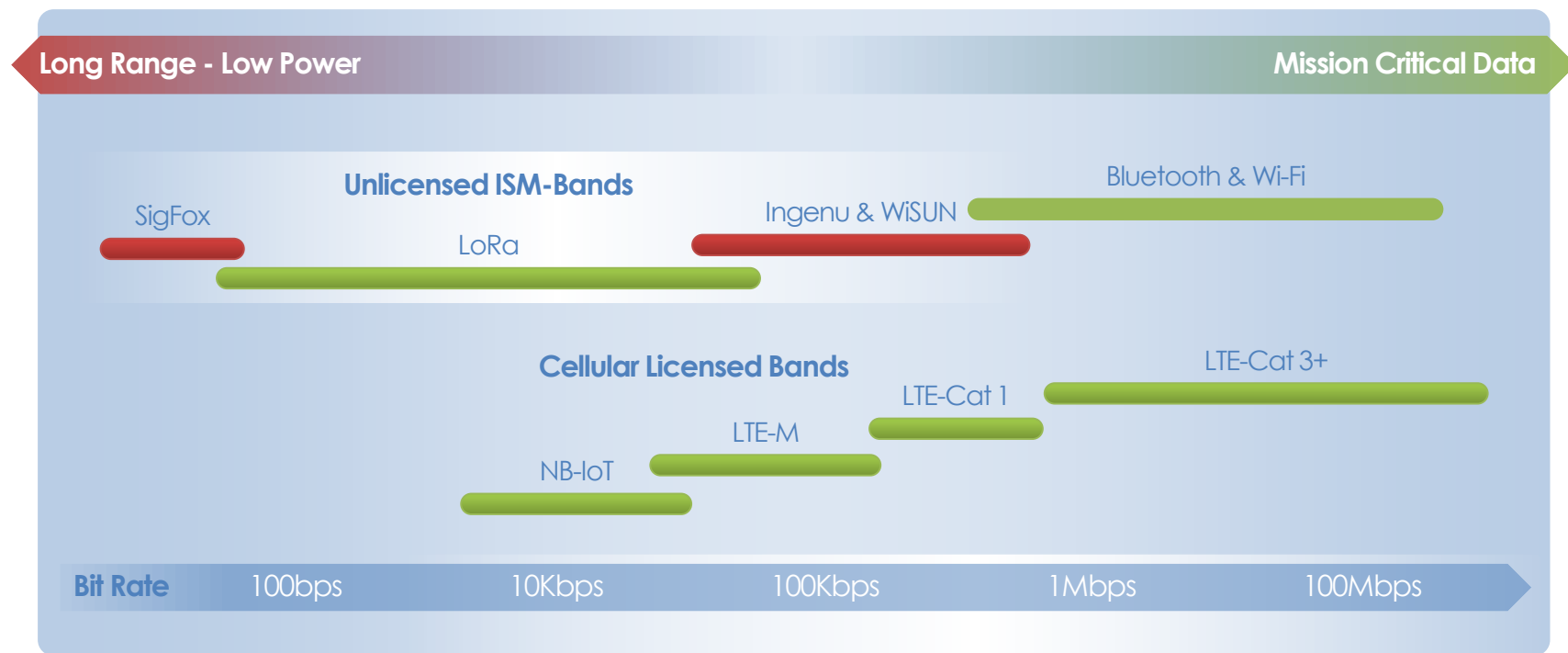
Enterprise

- Asset Monitoring
- Building Management
- Manufacturing Operation

Conserve
Energy

LPWA Technologies for Every App

Multiple Technologies, often Complimentary



Comparison of LPWAN to LTE MTC

Feature	LoRaWAN Now	Sigfox Now	LTE Cat-1 2016 (Rel-8) Now	LTE Cat-M1 2017 (Rel13)	LTE Cat-M2 NB-IoT 2018 Rel13+
Modulation	SS with Chirp	UNB / GFSK - BPSK	OFDMA	OFDMA	OFDMA
Rx bandwidth	500 - 125 KHz	100 Hz	20 MHz	1.4 MHz	200 KHz
Data Rate	290 - 50K bps	100 bps 12 / 8 bytes Max	10 Mbps	380 Kbps	40 Kbps
Max. # Msgs/day	Unlimited	UL: 140 msgs/day DL BC: 4 msgs/day	Unlimited Single Ant (200KB)	Unlimited	Unlimited
Max Output Power	20 dBm	20 dBm	23 - 46 dBm	23 dBm	20 dBm
Link Budget	154 dB	151 dB	130 dB+	146 dB	150 dB
Communication channel	Half Duplex	Quasi Half Duplex	Full Duplex	Half Duplex	Half Duplex
Power Efficiency	Very High	Very High	Low	Medium	High
Complexity	Very Low	Very Low	High	Medium	Low
Coexistence	Yes	No	Yes	Yes	Yes

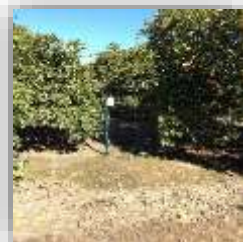
Smart Agriculture - Real Time Data



Soil Moisture



Flow EC



Pressure



Temp/Humidity

WaterBit: Unparalleled Performance



mDot

Proprietary and Confidential



MultiTech
Conduit



Broad Family of Cellular Products

MULTITECH®
CREATE • CONNECT • COMMUNICATE

Programmable Gateways for the Internet of Things

Industrial Grade M2M Modems & Routers

Embedded Modems

Plug & Play Wireless Dongles

Developer Kits & Support

The image displays a variety of Multitech cellular products. On the left, there is a blue industrial-grade gateway device. In the center, a green printed circuit board (PCB) represents an embedded modem. To the right, a blue USB wireless dongle is shown with its cable. Below the dongle, a developer kit is visible, featuring a complex PCB with various components and a black antenna. The background includes decorative elements like a green circuit board pattern, a yellow and red circular graphic, and a white circuit board pattern at the bottom.

Where to go for more Product Information?

MultiTech website

- www.multitech.com
 - Choose the product you're interested in to obtain datasheets and other product info

MultiTech LoRa Hub

- www.lora.multitech.com
 - Find out about the world of LoRa and MultiTech's activities in this area

MultiTech Developer Website

- www.multitech.net
 - Detailed technical and specification information on MultiTech products, including the LoRa-based portfolio



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