Technical Data Sheet

PRODUCT: FITPOWER | PART NUMBER (PN): FPBLE1.0

Non-Invasive Power **Monitoring Solution**

Monitoring the operation and power of your assets is an important part of maintaining and optimising the performance of your equipment.

FitPower is a smart, self-installed sensor that monitors and measures the energy individual machines are using to show trends over time. As a completely wireless sensor, it can be safely installed any anyone, anywhere along the power cable, at any time - no specialist skills, plant shutdowns or safety gear required. And that's just the tip of the iceberg! The ones that are melting. With FitPower, we're aiming to help organisations reduce their energy consumption and reduce global warming.



IP65 ENCLOSURE

Housing for outdoor and harsh conditions. Tested to "dust tight".

INTEGRATED WIRELESS

Uses BLE 5.3 to connect to a bluetooth gateway every 10 minutes which then sends data to the Movus Cloud.

QR code with unique MAC address for onboarding FitPower to Gateway and equipment.

ULTRA-LOW POWER

More than two years battery life* under normal operating conditions.

*based off 1 minute sample intervals

PROCESSING POWER

Low power module: NRF5340 wireless SoC with dual core Arm® Cortex®-M33 processors

MOUNTING

Designed for rapid deployment. Mount onto any cable greater than 9mm diameter with nothing but zip ties. Got smaller cables? No problem, we can provide an adapter.



STANDARD:

Zip Tie Mounting

ON REQUEST:

Adapter for smaller than 10mm cable diameter

property of I MOVUS® movus.com.au xx:xx:xx:xx:xx

ON REQUEST:

Other custom mounting options available

TECHNICAL SPECIFICATIONS



Bluetooth BLE 5.3 Operating Temperature Range -40°C to 105 °C extended operating temperature Supply Voltage 17-5.5V CPU 128/64 MHz Arm Cortex M33 Memory 1 MB Flash + 512 KB RAM Network core memory 256 KB Flash + 64 KB RAM Security features 1 Trusted osecution, root-of-trust, secure key storage, 38-bit Affs RX sensitivity -98 dBm at 1 Mbps +95 dBm at 2 Mbps Frequency Range 1 High-performance 3-axis magnetometer Frequency Range 5tandard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field expeture 4-16 gauss A/D Conversion (all) 16 bit Part Number 5x3605 L 1-5002 Estimated Battery Lifetime 2 years Battery Module 1 To order additional PS Battery Module, use MOVUS PNs BADcell Certifications Rayta Module 5CG, IC, IC, Telec (MIC), KC, SRRC, NCC, RCM, WPC Rel's S Reach Compliant Weight 0-28 kg 875 oz) Minimum cable diameter without adapter History 49mm (3-30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter			
Operating Temperature Range -40°C to 105°C extended operating temperature Supply Voltage 17-55V CPU 128/64 MHz Arm Cortex-M33 Memory 11MB Flash + 512 KB RAM Network core memory 256 KB Flash + 64 KB RAM Security features Trusted execution, root-of-trust, secure key storage, 128-bit AES RX sensitivity -36 dism at 1Mbps -36 dism at 2 Mbps BX sensitivity -166 dism at 2 Mbps RX sensitivity -166 dism at 2 Mbps BY Part Number LIS3MDL Sensor technology High-performance 3-axis magnetometer Frequency Range Standard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field exposure 4-16 gauss A/D Conversion (all) 16 bit A/D Conversion (all) 16 bit Battery Type 12,86 VD Lithium Thionyl Chloride (LI-SOCI2) cell repleceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2-years + Battery Module To order additional PS Battery Module, use MOVUS PKE BADdell Environmental Operating Temperature 0°C to 89°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRIC, NCC, RCM, WPC RoHS & Reach Compilant Weight 0.248kg (8.75 cz) Clase Material ABS Like Dimensions Minimum cable diameter without adapter	BLE Communication	Module	
Supply Voltage 17-55V		Bluetooth	BLE 5.3
CPU 128/64 MHz Arm Cortex-M33		Operating Temperature Range	-40°C to 105°C extended operating temperature
Memory Network core memory 256 KB Flash + 54 KB RAM Security features Trusted execution, root-of-trust, secure key storage, 128-bit AES RX sensitivity -96 dBm at 1 Mbps -95 dBm at 2 Mbps Bart Number LIS3MDL Sensor technology High-performance 3-axis magnetometer Frequency Range Standard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field deposure A/O Conversion (all) 16 bit Power Battery Type 1x 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell - replaceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PNE BADcell Environmental Operating Temperature O"C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module Replace Compliant Weight O248kg (8.75 oz) Case Material ABS-Like Dimensions Minimum cable diameter without adapter I 5mm		Supply Voltage	1.7-5.5V
Network core memory Z56 KB Flash + 64 KB RAM Security features Trusted execution, root-of-trust, secure key storage, 128-bit AES RX sensitivity -99 dBm at 1 Mbps -95 dBm at 2 Mbps -95 dBm at		CPU	128/64 MHz Arm Cortex-M33
Security features Trusted execution, root-of-trust, secure key storage, 128-bit AES RX sensitivity -98 dBm at 1 Mbps -95 dBm at 2 Mbps Magnetic Field Measurement Part Number LIS3MDL Sensor technology High-performance 3-axis magnetometer Frequency Range Standard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field exposure A/D Conversion (all) 16 bit Power Battery Type 1x 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell - replaceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module; use MOVUS PN: BADcell Environmental Operating Temperature 0°C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC Rel'S Reach Compliant Weight 0.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Memory	1 MB Flash + 512 KB RAM
Security restures storage, 128-bit AES RX sensitivity -98 dBm at 1 Mbps -95 dBm at 2 Mbps Part Number LIS3MDL Sensor technology High-performance 3-axis magnetometer Frequency Range Standard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field exposure 4-16 gauss A/D Conversion (all) 16 bit Power Battery Type 1x 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell -replaceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PN: BADcell Environmental Operating Temperature 0°C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant Weight 0.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Network core memory	256 KB Flash + 64 KB RAM
Magnetic Field Measurement Part Number LIS3MDL Sensor technology High-performance 3-axis magnetometer Frequency Range Standard and Fast modes 100 kHz and 400 kHz Maximum permissible magnetic field exposure A/D Conversion (all) 16 bit Power Battery Type 1 x 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell replaceable battery Part Number ER34615 Li-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PN: BADcell IP Class IP 65 Certifications Raytac Module FC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROH5 & Reach Compliant Weight O248kg (8.75 oz) Case Material ABS-Like Dimensions Minimum cable diameter without adapter I 5mm		Security features	
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Maximum permissible magnetic field exposure A/D Conversion (all) 16 bit 17 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell replaceable battery Power Battery Type 18 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell replaceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PN: BADceil Operating Temperature O°C to 85°C, 32°F to 185°F IP Class IP Class IP 65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoH5 & Reach Compilant Weight O.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Sensor technology	High-performance 3-axis magnetometer
A/D Conversion (all) A/D Conversion (all) Battery Type 1x 3.6V D Lithium Thionyl Chloride (LI-SOCI2) cell – replaceable battery Part Number ER34615 LI-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PN: BADcell Environmental Operating Temperature O°C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoH5 & Reach Compliant Weight O.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Frequency Range	Standard and Fast modes 100 kHz and 400 kHz
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Part Number ER34615 Li-SOCI2 Estimated Battery Lifetime 2 years + Battery Module To order additional PS Battery Module, use MOVUS PN: BADcell Environmental Operating Temperature 0°C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant Weight 0.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		A/D Conversion (all)	16 bit
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Battery Module To order additional PS Battery Module, use MOVUS PN: BADcell Operating Temperature O°C to 85°C, 32°F to 185°F IP Class IP65 Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant Weight O.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Part Number	ER34615 Li-SOCI2
Environmental Operating Temperature O°C to 85°C, 32°F to 185°F IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant Weight O.248kg (8.75 oz) Case Material ABS-Like Dimensions Minimum cable diameter without adapter Battery Module O°C to 85°C, 32°F to 185°F FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach Compliant FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC ROHS & Reach		Estimated Battery Lifetime	2 years +
IP Class IP65 Certifications Raytac Module FCC, IC, CE, Telec (MIC), KC, SRRC, NCC, RCM, WPC RoHS & Reach Compliant Weight 0.248kg (8.75 oz) Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		Battery Module	
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Physical Weight Case Material Dimensions Minimum cable diameter without adapter RoHS & Reach Compliant 0.248kg (8.75 oz) ABS-Like 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter		IP Class	IP65
Case Material ABS-Like Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter 15mm	Certifications	Raytac Module	
Dimensions 84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in) Minimum cable diameter without adapter 15mm	Physical	Weight	0.248kg (8.75 oz)
Minimum cable diameter without adapter 15mm		Case Material	ABS-Like
without adapter 15mm		Dimensions	84mm x 53mm x 49mm (3.30 in x 2.09 in x 1.93 in)
			15mm
Mounting Zip Ties		Mounting	Zip Ties