

BEYOND 12

Technical Specifications



POWER

Input Voltage:	9 - 36 VDC
Power Consumption:	Average: 0.5 - 0.6 W
	Transmitting: 1 - 3 W
	Startup*: 0.4 - 2 W

*The startup consumption settles after about 10 seconds

INTERFACE

I/O lines:	4x PWM Autopilot signal input 4x PWM Actuator signal output 2x PWM configurable output (ERC) Serial TTL 3V3 (device status)
Programming Interface:	Serial TTL 3V3
PWM rate In:	20 - 200 Hz
PWM rate Out:	50 Hz
Antenna connector:	50 Ω SMA Female
Input $\rightarrow$ Output	
- Non-terminated state:	Short circuit
- Max current trough:	200 mA
- Terminated state:	Int. signals generated

IRIDIUM

Frequency band:	1610 - 1626.5 MHz
Modem to modem avg. latency:	**15 s
Range:	Unlimited (Global coverage)
Suggested antenna:	HC600 Passive Iridium Helical Antenna

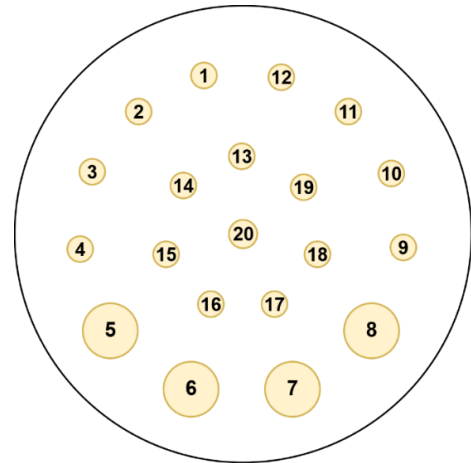
**Average latency when coverage is good.

MECHANICAL

IP rating:	IP68
Temperature rating:	-20° to +80°C
Component grade:	Automotive grade: AEC-Q100 AEC-Q200
Dimensions:	H: 23.5 mm L: 69.0 mm W: 49.2 mm
Mass:	98 g
Material:	Anodized Aluminum: (Orange & Black)

CONNECTOR INTERFACE

Pin #	Colors	Pin description
1	White	AUX1
2	Brown	AUX2
3	Green	ERC1
4	Yellow	ERC2
5	Grey	GND
6	Pink	BATT +
7	Blue	BATT -
8	Red	GND
9	Black	2A PWM OUT
10	Violet	2A PWM AP
11	Grey-Pink	2B PWM OUT
12	Red-Blue	2B PWM AP
13	White-Green	1B PWM AP
14	Brown-Green	Host Serial RX
15	White-Yellow	Host Serial TX
16	Yellow-Brown	External Relay
17	White-Grey	1A PWM OUT
18	Grey-Brown	1A PWM AP
19	White-Pink	1B PWM OUT
20	Pink-Brown	GND



Front view of the connector from the cable's perspective

Pin Type	Protocol	Maximum Rating
AUX	Digital H/L/hi-Z TTL – 5V / 3V3	6 V / 50 mA
ERC	PWM - 5V / 3V3 Digital H/L/hi-Z	6 V / 50 mA
PWM AP	PWM - 5V / 3V3	6 V / 25 mA *28 V / 200 mA
PWM Out	PWM - 5V / 3V3 Digital H/L	6 V / 25 mA
Host Serial	TTL - 3V3	6 V
External Relay	Open drain input	28 V 150 mA

*Upon request.

TECHNICAL DRAWING

