



GENERAL		rev.4 SPECIFICATION
Type	PCB module	
Usage	Control/command communication and sensor data exchange	
Data link type	Digital half-duplex	
MECHANICAL & ENVIRONMENTAL		
PCB dimensions & weight	W: 59 mm L: 52 mm H: 10 mm ; 16 g	
IP rating	IP65 with custom enclosure	
Operating temp. range	-40...+85 C	
Enclosure	Custom enclosure possible	
TECHNICAL DATA		
Raw data speed	250 kbps	
Delay	< 50 ms	
Output power	> +32.8 dBm	
Tested link range	LoS ~40 km per link; up to 80 km with repeater	
Frequency range	2300-2700 MHz, 1 MHz channel step	
Power input	+6...24 V, average 1 mA, max 1 000 mA @7V	
Modulation type	GFSK	
Sensitivity	< -106 dBm typical	
Total link budget	138,8 dB	
Channel spacing	< 1 MHz	
Frequency hopping	128 random channels	
Power consumption (TX/RX/Standby/Sleep)	Test @7V: TX 1000mA, RX 46mA, average 1mA, Active sleep ~50uA, deep sleep < 10uA	
Supplied battery	1000 mAh 2S Li-Ion battery. Standby 1-2y, In working mode ~1000h Built in USB-C charger. Charging current 2A	
Encryption	AES128, 3DES	
Remote ↔ TX range	100+ meters with CAT cable	
REPEATER		
Number of active devices	5 pairs (remote controller + receiver module)	
Devices in queue	250	
SOFTWARE		
Protocol	Proprietary	
INTERFACES		
Serial port & speed	TTL 3.3V Full Duplex UART; async 9600 - 1 Mbaud	
Serial port protocol	Serial passthrough, CRSF, Proprietary	
USB	USB-C for charging, software updating and configuring	
Antenna Connector	SMA male	