

**WATERPROOF
RATED IP65**



VANGUARD+

DIGITAL TWO-WAY RADIO

Main Function

- Tier iii
- Scan
- High / Low Power
- Volume Control
- Low Power Alert
- Dual Slot Charger

Digital Features

- Remote Kill
- Remote Revive
- Private Call
- Group Call
- General Call
- No-address Call
- Remote Monitor
- Remote Detection
- Call Prompt
- Emergency Alarm
- Voice encryption
- GPS [Optional]

Analog Features

- CTCSS
- DCS
- Squelch Setting
- Busy Channel Lockout
- Narrow/Wide Band
- Scrambler [Optional]
- Compandor[optional]



Back



Left side



Right side



Technical parameters

General specification

Model	VANGUARD	
	UHF	VHF
Items		
Channel Zone	16	
Total channel capacity (512)	256 (Analog)	
	256 (Digital)	
Frequency range	400 - 480MHz	136 - 174MHz
Antenna impedance	50Ω	
Dimension(HxWxD)	97x 58 x 40 mm	
Weight (W/battery)	270g	
Li-ion battery	2300mAh	
Rated voltage	DC: 7.4V	
Battery: The average battery life under 5/5/90 duty cycle, and using carrier squelch and TX high power. 1500mAh li-ion battery Analog: 10.6hours / Digital: 14.3hours		

Note: The battery working life may have little difference.
Battery capacity maybe change without notice, but the list is standard specification.

Receiver

Frequency	400 - 480MHz	136 - 174MHz
Channel Spacing	12.5kHz / 25kHz	
Frequency stability (-20°C, +60°C, +25°C)	+ / - 1.5ppm	
Analogue sensitivity (12 dB SINAD)	0.3uV / 0.25uV	
Digital sensitivity (5% BER)	0.25uV / 0.20uV	
Intermodulation	65dB	
Adjacent channel selectivity	60dB@12.5kHz / 65dB@25kHz	
Spurious rejection	65dB	
Rated audio	800mw	
Audio distortion @rated audio	3%	
FM hum & noise	-40dB@12.5kHz / -45dB@25kHz	
Audio response	+1, -3dB	
Conducted/ radiated emission	-57dBm	

Transmitter

Frequency	400 - 480MHz	136 - 174MHz
Channel Spacing	12.5kHz / 25kHz	
Frequency stability (-30°C, +60°C, +25°C)	+ / - 1.5ppm	
Low Power	0.5 W	2 W
High Power	4.5 W	5 W
Modulation restriction	±2.5kHz@12.5kHz/±5.0kHz@25kHz	
FM hum & noise	-40dB@12.5kHz/-45dB@25kHz	
Conducted/radiated emission	-36dBm<1GHz/-30dBm>1GHz	
Adjacent channel selectivity	-60dB@12.5kHz/-65dB@25kHz	
Audio Response	+1, -3dB	
Audio Distortion	3%	
FM modulation	12.5kHz: 11K0F3E 25kHz: 16K0F3E	
4FSK digital modulation	12.5kHz data: 7K60F1D and 7K60FXD	
	12.5kHz audio: 7K60F1E and 7K60FXE	
	12.5kHz data and audio :7K60F1W	
Digital vocoder	AMBE+2™	
Digital agreement	ETSI-TS102 361-1, -2, -3	

GPS (Optional)

Precisely and standard designed for a long-term positioning (95% value > could find 5 satellites @ rated -130dBm signal strength)	
TTFF (time to fist fix) cold start	< 1 min
TTFF(time to fist fix) warm start	< 10 s
Horizontal position accuracy	< 10 ms

Accessories & Optional



AC Adaptor



Charger



Li-ion Battery 2300mAh



Antenna



Belt Clip



Tie