

Small, lightweight and features a large, bright display and keypad, which further enhances the radio's capabilities such as one-to-one calling and text messaging.

The HP685 features AI noise cancellation, designed to reduce unwanted background noise, extended coverage, and a lithium-polymer battery. As an easy-to-use device, it's great for customer-facing staff, maintenance engineers and security teams.



Specifications

General	
Frequency Range	UHF: 400-527MHz VHF: 136-174MHz
Channel Capacity	1024
Zone Capacity	64
Zone Channels	256
Channel Spacing	12.5kHz/20kHz/25kHz
Operating Voltage	7.7V (rated)
Battery	2000 mAh Li-polymer
Battery Life (5/5/90)	16h (GNSS on), 20h (GNSS off)
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Dimensions (HxWxD)	122x55x31.5mm
Weight (with antenna & battery)	280g
Display	160 x 128 pixels, 65536 colors, 1.8inch, 6 rows
BT	BT 5.0 BLE+EDR

Receiver	
Sensitivity	Analog: 0.18µV (12dB SINAD); 0.16µV (Typical) (12dB SINAD) Digital: 0.18µV/BER5%
Selectivity	TIA-603: 60dB@12.5kHz / 70dB@20/25kHz ETSI: 60dB@12.5kHz/ 70dB@20/25kHz
Intermodulation	TIA-603: 70dB@12.5kHz/20/25kHz ETSI: 65dB@12.5/20/25kHz
Spurious Response Rejection	TIA-603: 70dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz
Blocking	TIA-603: 80dB ETSI: 84dB
Hum and Noise	40dB@12.5kHz; 43dB@20kHz; 45dB@25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	UHF: 1W/4W VHF: 1W/5W
FM Modulation	11K0F3E@12.5kHz, 14K0F3E@20kHz, 16K0F3E@25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/ Radiated Emission	-36dBm<1GHz;-30dBm>1GHz
Modulation Limiting	±2.5kHz@12.5kHz;±4.0kHz@20kHz;±5.0kHz@25kHz
FM Hum & Noise	40dB@12.5kHz; 43dB@20kHz;45dB@25kHz
Adjacent Channel Power	60dB@12.5kHz; 70dB@20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental	
Operating Temperature	-30°C*~+60°C*
Storage Temperature	-40°C*~+85°C*
ESD	IEC 61000-4-2 (Level 4), ±8kV (contact); ±15kV (air)
Dustproof & Waterproof	IEC60529-IP67
Humidity	MIL-STD-810 G
Shock and Vibration	MIL-STD-810 G

Location Services	
GNSS	GPS, GLONASS, GPS+GLONASS
TTFF(Time To First Fix) Cold Start	<1minute
TTFF(Time To First Fix) Hot Start	<10seconds
Horizontal Accuracy	<5meters

Accuracy specs are for long-term tracking
(95th percentile values>5 satellites visible at a nominal -130dBm signal strength)

*Radio only - Battery -20°C

Call Systems Technology Ltd

Unit 240, Centennial Park, Elstree, Hertfordshire, WD6 3SJ
Registered address: 50 Seymour Street, London W1H 7JG
Registered in England No. 4025235 • VAT Reg. No. GB 220 8954 10

Stay connected:



Accessories

Standard



CH10L27
Single-unit Charger for Li-ion polymer battery



PS1044
Universal Standard Switching Power Adapter



BP2002
Li-polymer battery



AN0155H08
VHF Antenna (136-174MHz/1575MHz)



AN0435W09
UHF Antenna (400-470MHz)



BC48
Spring Belt Clip



RO03
Nylon wrist strap

Optional



ESW01
Wireless Headset with Boom Microphone (for helmet).



PC45
Programming cable (USB to Serial) for handheld radios in PD6 and X1 series



POA121
Bluetooth Ring PTT

Call Systems Technology Ltd

Unit 240, Centennial Park, Elstree, Hertfordshire, WD6 3SJ
Registered address: 50 Seymour Street, London W1H 7JG
Registered in England No. 4025235 • VAT Reg. No. GB 220 8954 10

Stay connected:

