

BD615 BUSINESS DIGITAL RADIO A Rugged Radio for Harsh Environments



Hytera's BD615 two-way radio inherits the excellent performance of Hytera TC6 series of analogue products, that provides professional communication which is easily operated, rugged and reliable. Today, communication tools are the key to improved efficiency. When we ask for clear voice, it means wanting a reliable, easy to hear and understand source of communication. Long battery life helps you to maintain control. A rugged and robust device takes the worry out of communicating. High performance combined with a simple user interface helps ensure ease of use.

Hytera understands their customer's requirements and provides this all in one solution. With lightweight, easyoperation, excellent performance, long battery life and reliability. We redefine a business radio using Hytera digital technology and quickly responding to what you need.

EXCELLENT PERFORMANCE

With innovative design, the BD615 has better performance than analogue radios. Excellent reception sensitivity means the effective range for communication can be extended. The BD615 DMR digital radio has no interference, providing a stable communication connection.

RUGGED AND RELIABLE

The BD615 features a bold two-colour designed and tested to meet Military Standards 810 G, including temperature shock, vibration, high & low temperature and humidity. The IP66 dust-and-water-proof design guarantees the devices reliability across different environments.

CLEAR VOICE

With digital encoding and correction technology, human voice is transmitted clearer without noise, even over greater distances. This is a new experience in the world of improved audio quality.

ANTENNA Enhance signal receiving ability.

POWER ON/OFF, VOLUME UP/DOWN

CHANNEL KNOB Support 16 channels that are easily changed.

LED INDICATOR Show the radio receiving and transmitting status as green light and red light.

PUSH-TO-TALK BUTTON Easy to find and operate.

PROGRAMMABLE BUTTON It can be programmed for useful functions as you require.

SPEAKER AND MICROPHONE Provide clear reception and transmission of audio.

AUDIO JACK Supports different earpieces and remote speaker.



PROFESSIONAL AND SIMPLE TO USE

A/D ANALOGUE & DIGITAL DUAL MODES

BD615 can support analogue and digital modes on the same hardware. You can switch between two operation modes easily and it helps you to communicate with analogue radios.

$\overline{\mathbf{x}}$ **EXTENDED TALK RANGE**

Based on Hytera innovative technology, your talk range is extended.

LONG WORKING TIME

BD615 in digital mode can work up-to 16 hours @1500mAh or 22 hours@2000mAh in 5-5-90 mode.

CLEAR VOICE ₿

Excellent audio quality comes from the DMR digital technology, which makes communication more reliable.

RELIABLE AND DURABLE

BD615 is compliant with MIL-STD-810 G and IP66.

ANTI-INTERFERENCE (4)

Adopted digital encoding and error correcting module, BD615 has the ability to avoid signal interference on the same frequency.

DMR SIGNALLING DMR

With DMR signalling, transmitting group call, private call and all call with PTT ID becomes guite easy.

(((▲))) **REPEATER MODE OPERATION**

Utilize a DMR Tier II repeater to extend your communication range.

((VOICE ANNOUNCEMENT

Channel number announcement helps you to switch channels guickly and correctly, even in blindness operation.

VOX

This feature allows you to activate the radio and microphone via your voices volume, and frees your hand from PTT.

SCANNING

Allow BD615 listening to communication activities on other channels.

ACCESSORIES



OPTIONAL ACCESSORIES





ESM12

EHM15-A D-style earpiece with in-line PTT & MIC VOX switch

EHM18-A C-style earpiece with in-line PTT & MIC VOX switch

Ear-bud with PTT on MIC VOX switch



ACM-01

lp54

PC76



ES-01 PTT&MIC-only with 3.5mm jack Receive-only ear-bud

ES-02 Receive-only surveillance earpiece







SM26M1^① Remote speaker microphone

lp54 with 2.5mm audio jack



Data programming cable





BL2018 2000mAh Li-ion battery

MCL19 BD50X multi-unit charger

① SM26M1 can be used with earpiece EAS03

② AN0435H13:400-470MHz,9cm AN0141H06:136-147MHz,17cm AN0167H07:160-174MHz,12cm AN0153H08:147-160MHz/1575MHz,12cm AN0435W09: 400-470MHz, 16cm AN0153H07: 147-160MHz, 17cm AN0160H13: 146-174MHz, 15cm AN0167H07: 160-174MHz/1575MHz, 12cm









CHV09







VOX switch



EAM13 2-wire surveillance earniece

VOX switch



EH-02 Receive-only earhook speaker



NCN011 Nylon carrying jacket





Vehicle adapter (Input: 11-25V DC, Output: 12V DC & 1A)



NCN019 A washable nylon chest pack, easy to carry.



9cm

AN0435H13 Stubby antenna, 400-470MHz,

SPECIFICATION

General			
Frequency Range		UHF: 400-470 MHz; VHF: 136-174 MHz	
Channel Capacity		48	
Zone Capacity		3	
Channel Spacing		25/12.5kHz	
Operating Voltage		7.2V	
Battery		1500mAh (Li-Ion)	
Battery Life (5/5/90)		Analogue/Digital: 11/17 hours (1500mAh)	
Weight		240g	
Dimensions		108×54×29mm	
Frequency Stability		±0.5ppm	
Antenna Impedance		50Ω	
Receiver			
Sensitivity (Digital)		0.22µV / BER 5%	
Sensitivity (Analogue)		0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)	
Adjacent Selectivity	TIA-603	65dB @ 12.5kHz/70dB @ 25kHz	
Spurious Response Rejection	TIA-603	70dB @ 12.5/25kHz	
Inter-modulation	TIA-603	65dB @ 12.5/25kHz	
Hum & Noise		40dB @ 12.5kHz 45dB @ 25kHz	
Rated Audio Power Output		0.5W	
Rated Audio Distortion		≤3%	
Audio Response		4 9 10	
Audio Response		+1 ~ -3dB	

TransmitterRF Power OutputVHF High power: 5W VHF Low power: 1W UHF High power: 4W UHF Low power: 1WFM Modulation11K0F3E @ 12.5kHz 16K0F3E @ 25kHz4F5K Digital Modulation12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXWConducted/Radiated Emission-36dBm <1GHz,-30dBm >1GHzModulation Limiting±2.5kHz @ 12.5kHz ±5.0kHz @ 25kHzFM Hum & Noise40dB @ 12.5kHz 45dB @ 12.5kHzAdjacent Channel Power60dB @ 12.5kHz, 70dB @25kHzAudio Response+1 ~ -3dBAudio Distortion≤5%Digital Vocoder TypeAMBE+2™Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30°C~ +60°CStorage Temperature-40°C~ +85°CESDIEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G StandardShock & VibrationPer MIL-STD-810 G Standard				
RF Power OutputVHF Low power: 1W UHF High power: 4W UHF Low power: 1WFM Modulation11K0F3E @ 12.5kHz 16K0F3E @ 25kHz4F5K Digital Modulation12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXWConducted/Radiated Emission-36dBm <1GHz, -30dBm >1GHzModulation Limiting $\pm 2.5kHz$ @ 12.5kHz $\pm 5.0kHz$ @ 25kHzFM Hum & Noise40dB @ 12.5kHz $45dB @ 12.5kHz$ Adjacent Channel Power60dB @ 12.5kHz $45dB @ 12.5kHz$ Audio Distortion $\leq 5\%$ Digital Vocoder TypeAMBE+2 TM Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30°C~ +60°CStorage Temperature-40°C~ +85°CESDIEC 61000-4-2 (Level 4) $\pm 15kV (Contact)$ $\pm 15kV (Air)$ Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	Transmitter			
FM Modulation16K0F3E @ 25kHz4FSK Digital Modulation12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXWConducted/Radiated Emission-36dBm <1GHz, -30dBm >1GHzModulation Limiting±2.5kHz @ 12.5kHz ±5.0kHz @ 25kHzFM Hum & Noise40dB @ 12.5kHz 45dB @ 12.5kHzAdjacent Channel Power60dB @ 12.5kHz 45dB @ 12.5kHzAudio Response+1 ~ -3dBAudio Distortion≤5%Digital Vocoder TypeAMBE+2™Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30°C~ +60°CStorage Temperature-40°C~ +85°CESDIEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	RF Power Output	VHF Low power: 1W UHF High power: 4W		
4FSK Digital Modulation12.5kHz Data & Voice: 7K60FXWConducted/Radiated Emission-36dBm <1GHz, -30dBm >1GHzModulation Limiting $\pm 2.5kHz @ 12.5kHz \\ \pm 5.0kHz @ 25kHzFM Hum & Noise40dB @ 12.5kHz \\ 45dB @ 12.5kHzAdjacent Channel Power60dB @ 12.5kHz, 70dB @25kHzAudio Response+1 \sim -3dBAudio Distortion\leq 5\%Digital Vocoder TypeAMBE+2^{TM}Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30^{\circ}C \sim +60^{\circ}CStorage Temperature-40^{\circ}C \sim +85^{\circ}CESDIEC 61000-4-2 (Level 4)\pm 15kV (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard$	FM Modulation			
Modulation Limiting ± 2.5 kHz @ 12.5kHz ± 5.0 kHz @ 25kHzFM Hum & Noise $40dB @ 12.5$ kHz $45dB @ 12.5$ kHzAdjacent Channel Power $60dB @ 12.5$ kHzAudio Response $+1 \sim -3dB$ Audio Distortion $\leq 5\%$ Digital Vocoder TypeAMBE+2 TM Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature $-30^{\circ}C \sim +60^{\circ}C$ Storage Temperature $-40^{\circ}C \sim +85^{\circ}C$ ESDIEC 61000-4-2 (Level 4) ± 15 kV (Contact) ± 15 kV (Air)Dustproof & WaterproofIp66 Standard HumidityHumidityPer MIL-STD-810 G Standard	4FSK Digital Modulation			
Modulation Limiting ± 5.0 kHz @ 25kHzFM Hum & Noise $40dB @ 12.5$ kHzAdjacent Channel Power $60dB @ 12.5$ kHz, 70dB @25kHzAudio Response $+1 \sim -3dB$ Audio Distortion $\leq 5\%$ Digital Vocoder TypeAMBE+ 2^{TM} Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature $-30^{\circ}C \sim +60^{\circ}C$ Storage Temperature $-40^{\circ}C \sim +85^{\circ}C$ ESDIEC 61000-4-2 (Level 4) $\pm 15kV (Contact)$ $\pm 15kV (Air)$ Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz		
FM Hum & Noise45dB @ 12.5kHzAdjacent Channel Power60dB @ 12.5kHz, 70dB @25kHzAudio Response+1 ~ -3dBAudio Distortion≤5%Digital Vocoder TypeAMBE+2 [™] Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30°C~ +60°CStorage Temperature-40°C~ +85°CESDIEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	Modulation Limiting	_		
Audio Response $+1 \sim -3dB$ Audio Distortion $\leq 5\%$ Digital Vocoder TypeAMBE+2 TM Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature $-30^{\circ}C \sim +60^{\circ}C$ Storage Temperature $-40^{\circ}C \sim +85^{\circ}C$ ESDIEC 61000-4-2 (Level 4) $\pm 8kV$ (Contact) $\pm 15kV$ (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	FM Hum & Noise			
Audio Distortion $\leq 5\%$ Digital Vocoder TypeAMBE+2 TM Digital ProtocolETSI-TS102 361-1,-2,-3EnvironmentalOperating Temperature-30°C~ +60°CStorage Temperature-40°C~ +85°CESDIEC 61000-4-2 (Level 4) $\pm 8kV$ (Contact) $\pm 15kV$ (Air)Dustproof & WaterproofIp66 StandardHumidityPer MIL-STD-810 G Standard	Adjacent Channel Power	60dB @ 12.5kHz, 70dB @25kHz		
Digital Vocoder Type AMBE+2 [™] 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 Ip66 Standard Humidity Per MIL-STD-810 G Standard	Audio Response	+1 ~ -3dB		
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 Ip66 Standard Humidity Per MIL-STD-810 G Standard	Audio Distortion	≤5%		
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 Ip66 Standard Humidity Per MIL-STD-810 G Standard	Digital Vocoder Type	AMBE+2 [™]		
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 Ip66 Standard Humidity Per MIL-STD-810 G Standard	Digital Protocol	ETSI-TS102 361-1,-2,-3		
Storage Temperature -40°C~ +85°C ESD IEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air) Dustproof & Waterproof Ip66 Standard Humidity Per MIL-STD-810 G Standard	Environmental			
ESD IEC 61000-4-2 (Level 4) ± 8kV (Contact) ± 15kV (Air) Dustproof & Waterproof Ip66 Standard Humidity Per MIL-STD-810 G Standard	Operating Temperature	-30°C~ +60°C		
ESD ±8kV (Contact) ±15kV (Air) Dustproof & Waterproof Ip66 Standard Humidity Per MIL-STD-810 G Standard	Storage Temperature	-40°C~ +85°C		
Humidity Per MIL-STD-810 G Standard	ESD	±8kV (Contact)		
,	Dustproof & Waterproof	Ip66 Standard		
Shock & Vibration Per MIL-STD-810 G Standard	Humidity	Per MIL-STD-810 G Standard		
	Shock & Vibration	Per MIL-STD-810 G Standard		

BD615, X=0, 2, 5,6 or 8, model number varies geographically. For details, please contact our regional sales representatives.

All specifications are subject to change without notice due to continuous development.



Hytera Communications Corporation Limited

Hytera Communications Europe: 939 Yeovil Road, Slough, Berkshire, SL1 4NH info@hytera-europe.com www.hytera-europe.com