

# Hytera Rapid LTE Solution



## Industry Challenge

Isolated Area

Limited Resources

Limited Time

Harsh Environment

Multi-Media Data

Move Frequently

## Rapid LTE Solution



## Highlights

### Compact & Flexible & Portable

- Whole LTE System into One Single Box
- Fixed / Vehicle Deployment
- Power on and go
- Expandable to 4 sites

### High Reliability

- Sealing and No fan design
- Full System IP66, MIL-STD-810G
- Anti-Interference
- Power on and go

### Highly Security

- End to End Software Encryption
- Stun/revive, Kill the application
- Access Authentication
- 3GPP Air Interface Encryption

### High Performance

- Large Coverage up to 4km (Open area)
- Long operation time (6 hours)
- High Capacity ( 100 Users)
- High Throughput (40M UL, 120M DL)

### Professional Application

- Trunking Service
- Multi-media Service
- Command and Dispatching Service
- Location and Tracking Service
- Customization Service

### Various Terminals

- Rugged Terminal
- High Power CPE
- Anti-Shaking LTE Body Camera
- UAV

## Product List

### Demo Configuration

Box No	Product	Qty
1	Integrated LTE System	1
2	Power System	1

Box No	Product	Qty
3	Handset	3
	Handset	1
	BWC	2
	Helmet	1
	Tablet	1

Box No	Product	Qty
4&5	Antenna Support	1
6&7	Antenna	2

# Deployment Scenario



Field Command



Transportation Protection

## Communication Vehicle



LTE System



Power System



Antenna System

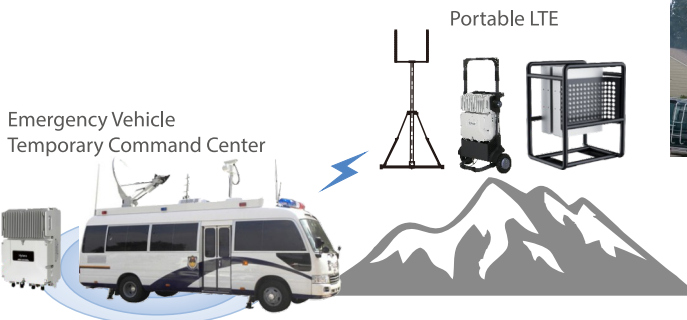


Accident Rescue



Disaster Relief

## Portable Application



## Flexible Expansion



Firefighting



Mineral Exploration

# Industry Applications

Public Security:	On the field, Rapid solution can cover the special area and provide communication service and help commander control the field person and vehicle.
Disaster Relief:	In disasters such as earthquakes and floods, the public network may fail. The LTE iBS system can provide emergency communications for first responder.
Oil&Gas:	During exploration, iBS can flexible expansion to increase the exploration area. iBS system also can provide temporary broadband service during pipeline maintenance.
Electric:	Most power transmission lines are deployed in sparsely populated zone, where no LTE signal, iBS can provide temporary communication during rescue or maintenance.
Railway& Road:	In the event of a major traffic accident in rural areas, iBS system can provide emergency communication in place where public network signals are unstable.

## BWT-3800 P-LTE ( iBS )



Integrated base station (iBS) is an outdoor station ,combines the functions of BBU, RRU and core network into one unit. It ensures smooth voice and data services by delivering stable signal coverage for specific areas and is suitable for users in sectors such as public safety, fire protection, power grid, as well as commercial users.

Item	FDD Band 28
Frequency	UL: 703~748MHz DL: 758~803MHz
Antenna Configuration	2T2R
Bandwidth	45 MHz
Max Output Power	2 x 20 W
Dimensions (HxWxD)	435 mm x 340 mm x 157.5 mm
Weight	26.5 kg
Power Supply	-48V DC (-38.4V to -60V DC) 220V AC
Typical Power Consumption	≤350 W
Operating Temperature	-40°C to +60°C, can start at -40°C
Ingress Protection Rating	IP66

## APP Sever



Special design for tactical scenario, no fan design with high reliability, IP66, stand proof, high temperature resistance. High computing performance, support Hytera multi-application: Hytalk Pro, PUC(Profession Unified Communication), ULP etc. Status display through LCD screen.

Item	Specification	
Platform	Processor	I7-8665UE
	Max. Frequency	4.40 GHz
	Chipset	Intel 300Series Chipset
Memory	Technology	DDR4-2400
	Capacity	32GB
Graphics	Controller	Intel UHD Gfx 620
	Display	HDMI1.4 up to 4096x2160@30/24Hz
Storage	M.2 SSD	500G~2T
Power	Supply Voltage	48V
	Consumption	<100W
Environment	Operating Temperature	-40~+60°C
	Protection level	IP 66

## Antenna System



LTE Antenna System includes antenna support and Omni-antenna make user rapid install and raise the antenna. the system has the Features of Fixed / Vehicle Deployment、Rapid Installation and High Gain for Large Coverage.

Antenna	
Frequency range	698 to 803 MHz
Gain (Gain)	8.7 dBi
Horizontal lobe width (Horizontal Beam width)	360°
Length	2.37m
Weight	4.54kg
Antenna Support	
Deployment	Vehicle or Ground
Extension height	8m±200mm
Transportation height	1.7m±20mm
Lifting rod body	6-section
Rod size	118*118mm
Bearing capacity	20Kg
Weight	30Kg
Hand force	10Kg
Wind resistance	Level 8 wind works normally, level 12 wind does not damage
Operation mode	Manual

## Outdoor Power Supply Unit



The distributed power system includes the power supply unit (PSU) and the lithium batteries unit. It can supply power to loaders through 220V AC or 48V DC converted into 220AC.

Product	AC Unit
Dimension /mm	400 x 300 x 60
Installation mode	Wall hanging, pole holding, angle steel tower
Input voltage	AC: 90 ~ 280 V AC
AC input	1x220 V/15 A
Output Voltage and Power	220 V AC, 1500 W, 3*15A
Product	Battery unit
Dimension /mm	400 x 300 x 120
Weight/kg	27
Capacity	2400 Wh
Protection level	IP65
Operating temperature	-40°C~+55°C

## Rugged Laptop-e-Center



E-center is an on-site command and dispatching center. The three-screen design integrates command and control, map and video surveillance to provide the most comprehensive information as possible in a visual way. It also supports multiple links to interconnect and cooperate with the rear command center. E-center can be used as the on-site command center in various emergencies such as fire fighting, flood, earthquake and typhoon etc.

Product	Specifications
Battery voltage	Reted 14.8V
Charge time	2h 80%, 3h 100%
Operating time	4 hours
CPU	Intel i7-6600U, dual core 4threads, 2.6GHz, RAM 24G, hard disk 1T
LCD	1920*1080, 15.6-inch, 3 pieces
Dimensions	48.5*35.6*16cm(L*W*D)
Weight/kg	15kg(including battery)
Operating temperature	-10°C to +50°C
Port	HDMI(Maximum 1920*1080, 1 way); Usb3.0(4 pieces)
SIM card holder	Standard SIM card
WAN port	10/100M
LAN port	100/1000M
PoE	802.3af PoE, 4ways, a single way up to 25W

## Fully Rugged Tablet

- 4G all network communication, WiFi, Bluetooth and other communication modes
- 10000mAh battery, 10 hours of machine endurance
- Support for Windows 10 system
- IP65 high protection level, in accordance with MIL-STD-810G
- Support GPS, more accurate positioning
- Support 5 million pixel auto focus camera, easy to collect images and video information



Basic parameters	
LCD	10.1 inch IPS 16:10, 800x1280, 400nits
Touch Panel	10 point G+G capacitive touch screen Corning® Gorilla® Glass
Camera	Front 2.0MP Rear 5.0MP HDMI 1.4a x 1,
I/O	USB 2.0 Type-A x 1, Micro USB x 1, SIM Card x 1, TF Card x 1, 12pins Pogo Pin x 1, DB9 RS232 x 1, RJ45 x 1, Φ3.5mm standard earphone jack x 1, Φ3.5mm DC jack x 1
Power	AC100V ~ 240V, 50Hz/60Hz, Output DC 5V/3A
Performance parameter	
CPU	Intel Atom x5 Z8350
OS	Windows 10
RAM	4GB
ROM	64GB/128GB
Communication	
WiFi	WiFi 802.11 a/b/g/n/ac (2.4G+5.8G)
Bluetooth	BT4.2
3G/4G	LTE FDD: B1/B3/B5/B7/B8/B20/B28A LTE TDD: B38/B40/B41
GNSS	Built-in GPS
Battery	
Capacity	3.7V/10000mAh, Li_polyment,
Endurance	10hrs(default 50% volumn , default 200 nit , play 1080P HD video)
Reliability	
Operate Temperature	-20 °C ~ 60 °C
Rugged Feature	IP65 certified, MIL-STD-810G certified
Drop Height	1.22m

# PNC560



- 6.3-inch Multi-touch Display
- Loud and Clear Voice Quality
- Long Battery Life and Fast Charge
- 48MP+8MP Rear Camera
- Dedicated PTT and Alarm Button
- Rugged and compact Design

Standards & Frequencies	
5G	N1/N2/N3/N5/N20/N28/N66/N41 /N77 /N78
LTE	B38/B39/B40/B41 /B42/B43/B48 B1 /B2/B3/B4/B5/B7/B8/B12/B13/B17 /B20/B26/B28
WCDMA	B1 /B2/B3/B4/B5/B8
GSM	850/900/1800/1900MHz
WLAN	2.4G/5G 802.11 a/b/g/n/ac
Bluetooth	BT 5.0
Positioning	GPS/Glonass/Galileo/Network
NFC	support
Environmental	
Dust and Water Proof	IP68
Military Standard	MIL-STD-810 G
Drop Resistance	1.5m
Operation Temperature	-20°C ~ +60°C
Certification	CE/GMS
General Specifications	
Memory	Typical:4G8+64G80optional:6GB+ 128GB, Expandable to 256G8 with Micro SD card
Display	6.3inch,1920*1080
Card Slot	Three card slots,2*Nano-SIM,*Micro SD
Camera	48MP+8MP AF 8MP FF
Battery	5000mAh
Fingerprint Recognition	support
sensor	Finger printsnesor,acceleration sensor,gyroscope sensor, geomagnetic senecor,infrared seneor,opto sensor
Audio Power Output	Max:3W
Operating System	Android 12
Charge Power	18W

# PDC680



## PDC680 Key Benift

- Light weighted
- loud and clear audio
- Roip
- Dual-screen
- IP68 and MIL-STD-810G
- Advanced global positioning
- Dual-SIM
- Full DMR trunking
- Multimedia gathering
- Dedicated Knob
- Multi-freqeency of cellphone
- Remote control

Wireless Data Communication	
DMR	350-527MHz
LTE	3GPP LTE;TDD-LTE: B34/B38/B39/B40/B41 FDD-LTE:B1/B2/B3/B4/B5/B7/B8/B20/B26/B28
CDMA	CDMA 1xRTT BC0;CDMA2000 1xEV-DO BC0
WCDMA	B1/B2/B4/B5/B8
TD-SCDMA	B34/B39
GSM	850/900/1800/1900MHz
WLAN	802.11 a/b/g/n/ac , 2.4GHz/5GHz
BT	V4.2, BDR/EDR/BLE
Positioning	GPS/BDS/GLONASS/Galileo/QZSS/A-GPS
General Specifications	
AP Processor	8-core , 1.8GHz
Memory	RAM : 3GB ; ROM : 32GB eMMC
Top Screen	0.92" 128x88 Color: black & white
MainScreen	3.6" 1280x720, Color depth: 24bit
Card Slots	2x Nano SIM;1x Micro SD;1x Encryption card for narrowband
Camera	Front:8MP,Fixed Focus;Rear:13MP,Auto Focus
Battery	
Standard Capacity	2400 mAh Li-polymer, 7.7V(Rated)
Transceiver	
Channel Spacing	25/20/12.5kHz
TX Power	1W/3W (Analog) 1W/4W (PDT)
Audio Output	2W
Digital Vocoder Type	AMBE+2™
Android Software	
Operating System	Android 10.0
Google Certification	Google Mobile Services
Video and Imaging	
Video Recording Quality	Front Camera: 1080P HD up to 30 frames per second(fps) Rear Camera: 1080P HD up to 30 frames per second(fps)
Environment Performance	
Dust and Water Proof	IEC60529- IP68 (2m, 4h), IEC60529-IP66
Shock and Vibration	MIL-STD-810G
Operating Temperature	-20°C~ +60°C

## Smart helmet



Pure imported material molded Aramid helmet shell. The design of the head of night vision base directly integrated into the top of the helmet shape, obviating the need to purchase additional night vision base open information, but can also be installed directly such as camera / headlights and other equipment in the head.

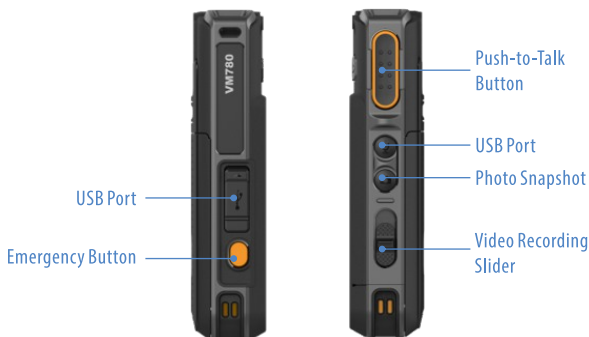
SIZE	L	XL
Thickness(mm)	7.2	7.2
Deviation(mm)	±0.2	±0.2
Area(m <sup>2</sup> )	0.108	0.119
Long Axis (mm) outside	269	278
Short Axis (mm) outside	214	226
Inside Height(mm)	172	175
Standard Weight(g)	1550	1650

## Body Worn Camera VM780



- On-site Real-time Video & Audio Streaming
- H.265 Video Compression Technology
- 216° Rotatable Camera
- Audio Group Call
- Long Battery Life
- Reliable & Rugged Design
- High Security Data
- Loud Audio

### Charging & Data Port



General	
memory	RAM: 2GB; storage: 16GB/32GB/64GB/128GB
Dimensions(H*W*D)	114.5mm*61mm*25.5mm
Weight (including battery)	<195g (2500mAh), <205g (3500mAh)
Camera	
Field of View	Diagonal 116°, horizontal 101°, vertical 57°
Battery	
Battery Life (continuous video shooting)	8 hours@1080P video shooting
Battery Capacity	2500mAh/3500mAh
Charging Time	<4 hours
Display	
Size	2.8-inch
Resolution	240*320 QVGA
Recording	
Video Format	mp4 (1080P@30FPS, 720P@30/60FPS, 480P@30FPS)
Video Encoding	H.264/H.265
Audio	
Speaker Power	1.5 Watt*2
Microphone	Dual microphones
Connction	
WI-FI	802.11 b/g/n
BT	1W/3W (Analog) 1W/4W (PDT)
Connector	Micro USB port, 4-pin contact port
Environmental Specification	
Ingress Protection	Ip68
Drop Resistance	2 m
Operating Temperature	-30°C~ +60°C
Certification	MIL-STD-81 OG, CE, FCC, IC
Night Vision	
IR Lamp	OSRAM*6
Night Vision Range	<10m
Positioning	
Satellite Positioning	GPS/BDS/GLONASS/AGPS
Network	
3G/4G (Nano SIM Card)	Europe: GSM: 850/900/1800/1900 TD-SCOMA: B34/B39 CDMA: BCO WCDMA: B1/B3/B5/B8 TDD-LTE: B38/B39/B40/B41 FDD-LTE: B 1 /B3/B5/B7 /B8/B20/B26/B28a America: GSM: 850/1900 WCDMA: 82/84/85 TDD-LTE: 838/840/841 FDD-LTE: 82/84/85/87/812/813/817 /826/827

## Reference Case

### X Province Emergency Department

There is Explosion accident in X Province Emergency Department use Hytera Rapid LTE Solution for rescue. LTE provide broadband network coverage for explosion area, help rescue team of communication and dispatching.





# X Province Forest Protection Department

Hytera Rapid LTE Solution help X province forest protection department during forest fire. And transfer video to the remote dispatching center in headquarter.





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