# K-BIT
**INTEGRATE SYSTEM CO.,LTD.**
บริษัท เค-บิท อินทิเกรท ซิสเท็ม จำกัด

# FlexRadio
## DFR-100N

## Mesh Network for Critical Mission and Public Safety
### Technology

Smart Terminal

Manpack

DRC

Cellsite

Mobile Base Station
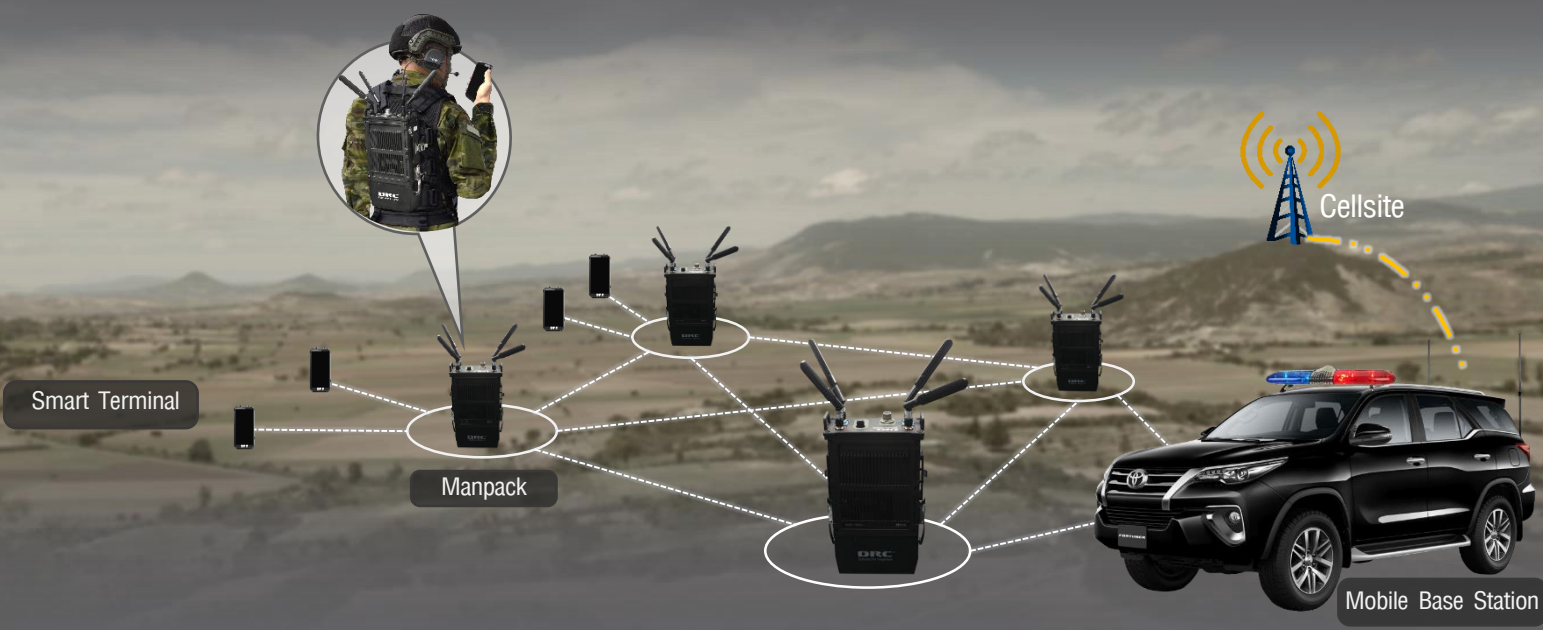
FlexRadio Network apply 4G-LTE MIMO 2x2 Double Frequency or MIMO 4x4 Single Frequency for High Speed Data, Video Streaming and high-quality Push to Talk. Thanks to Mesh Network, FlexRadio is suited for Critical Mission or Public Safety. Sample scenario: vehicle VIP protection, rescue people from far and no signal area such as in the cave.

**2 x 2 Double MIMO Antenna**

DFR-100N

DRC
Solutions Inspired

DRC

Manpack          Smart Terminal

## FEATURES

- Mesh Networking
- MIMO Technology
- Voice, Data and Video Streaming
- Interoperability
- High Speed Data
- Licensed & Unlicensed Band
- Web Based management
- Support DES or AES-256 bit
- Military Standard
- IP66 Protection standard

Made in Thailand

MIL-STD 810G

# System Diagram

Create your own network automatically Connect to Mesh Network.

**Command & Control**

INTERNET

**Video Streaming**

**High Speed Data**
Uplink & Downlink

**Manpack**

**Radio Gateway**

**Voice Communication**

**Digital Radio VHF / UHF**

**Mobile Base Station**

# Technical Specification

## GENERAL SPECIFICATION

| | |
|---|---|
| Connection Type | Mesh Network, CPE |
| Antenna System | MIMO Technology |
| Communication | Voice, Data and Video Streaming |
| Voice Communication | PTT Microphone<br>Group Call Operation by repeating voice signal as Mesh Network |
| System Management | Web Based |
| Working Status | LED DISPLAY |
| Power Requirement | 12VDC-24VDC<br>48VDC (option)<br>220VAC/50-60Hz (option) |
| Weight | 1.8 Kilograms (Exclude battery and antenna) |

## STANDARD / SAFETY

| | |
|---|---|
| Military Standard | MIL-STD-810G Vibration<br>MIL-STD-461F/G Radiated Emissions, Electric Field |
| Protection Standard | IP66 |

## TECHNICAL SPECIFICATION

| | |
|---|---|
| Frequency | 2.4 , 5.8 GHz, 4G-LTE (option) |
| Channel Bandwidth | 5, 10, 20 MHz |
| Power Output | 10 mW – 4 W (computer programmable) |
| Vocoder | G.711, G722, G726, G729, Opus (option) |
| Data Rate | More than 100 Mbps |
| Latency | $\leq$ 7 ms |
| Sensitivity | -102 dBm @ 5MHz BW |
| Encryption | DES, AES 128/256-bit (option) |
| RF Input /Output Impedance | 50 ohm |

## PHYSICAL QUALIFICATION

| | |
|---|---|
| Operating Temperature | -30 °C to +65 °C |
| Humidity | 0 - 95% |
| Interface | 1 x Ethernet Port (RJ-45)<br>4 x TNC(F) Antenna Connector<br>1 x PTT Port (option)<br>1 x USB 2.0 Port<br>1 x SIM slot (option) |
| Material | Aluminum Die-Cast with Heat Sink |

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