STINN LTEmp



Key Features

- A small eNodeB with reduced SWaP that leverages commercial cellular technology
- Provides assured voice, video, data and PLI services within the LTE bubble
- Has an integrated eNodeB and Evolved Packet Core (EPC) supported by an i7 quad core processor and managed through an operator tablet
- eNodeB supports all the LTE FDD bands
- Has a removal quad diplexer that supports four LTE Bands
- Can support up to 32 or 64 active users
- Achieves 1km range, QoS and throughput at low transmit power (nominal 1Watt)
- Low transmit power minimizes LPI / LPD concerns
- Supports different antenna configurations based on CONOPs & EW threat
- The embedded i7 quad core processor supports all the IP services and management functions
- Supports multiple eNodeBs networked together and tactical roaming
- Operates on AC & DC power and provides 4 plus hours of battery operations. Batteries are hot swappable
- Operational in 5 minutes
- Supports Type 2 Encryption and Sensitive But Unclass (SBU) information requirements

A Small Tactical IP Networking Node LTE Manpack (STINN LTEmp) in a Lightweight Form Factor

The Cornet Technology STINN LTEmp is a lightweight man packable LTE eNodeB that leverages proven technologies and complies with 3GPP industry standards. The manpack can easily scale to support small dispersed dismounted teams, to larger formations and mobile platforms in support of military, law enforcement and disaster response operations. The unit can easily be installed, operated, maintained in less than 5 minutes and can be quickly reconfigured through a ruggedized tablet. The embedded server class i7 quad core processor provides the user the ability to host all the IP services and smartphone applications at the point of operations. For RF supportability in congested and contested RF environments, the removal quad diplexer with four LTE Bands allows the operator to quickly change the LTE band without impacting operations. The STINN LTEmp also supports tactical roaming when traversing through overlapping LTE bubbles without disruption of service or user intervention required on their EUD. When connected via a WAN network, geographically dispensed manpacks would function as a single LTE network.

Advantages

- Can be quickly and easily configured to support mounted or dismounted operations from ruck, to vehicle, to Command Post, to aircraft platforms
- Integrates voice, video, data and PLI services in a single, small form factor eNodeB a Small Tactical IP Networking Node (STINN)
- Transport and Smartphone agnostic and supports connected or disconnected operations
- Supports UAS FMV distribution in the LTE bubble and over federated eNodeBs
- Can be configured to use external RF front end and amplifier
- The integrated EPC an i7 core processor ensures continuity of operations for IP services if disconnected from the higher enterprise network

Applications

- Supports C2, SA, PLI, Intel, telemedicine, logistics, force protection, biometrics (facial recognition) and sensor services and applications
- Provides your own secure private cellular network at the point of operations
- Military, Law Enforcement, First Responders and Disaster Response



STINN LTEmp Specifications

Mechanical, Power and Environmental

Size 3.7" H x 10.5" W x 9.6" D without Battery

3.7" H x 10.5" W x 14" D with Battery

Weight ∼18 lbs without battery

~21 lbs with battery

Input Power 9 - 30 V DC (Available with 5590/2590 battery)

100 - 240V AC

Supports External PA Connections

Temp Range *Operating*: -20°C to +50°C

Storage: -40°C to +50°C

Environmental Designed to MIL 810G

Technical

LTE Bands Supports over 32 commercial FDD Bands

RF Frequency Range 400 MHZ to 3 GHz bands

(Low Bands: <1000 MHz, High Bands: >1700 MHz)

Channel size 1.4, 3, 5, 10, 15 and 20 MHz

Duplexing FDD

Quad-Band Diplexer Current: Supports LTE Bands 4, 5, 7 and 14

Option: Quad Diplexer(s) are built to order based on

LTE Band requirements (any four FDD bands)

Air Interface LTE R9 (R10 - future)
eNodeB Modem Software Defined Radio
Encryption AES 256 with VPN tunnel

Functionality Integrated eNodeB and Evolved Packet Core (EPC)

Output Power: 1 W nominal

Supports External PA Connections

Antenna Scheme SISO (MIMO - future)
Antenna Types RF Omni Broadband

Low Profile Goose neck — Rucksack use (range \sim 150m) Mast Mounted — Command Post (range \sim 1Km) Vehicle Mag Mounted — Mobile ops (range \sim 500m)

RF Directional Broadband

Mast Mounted — Min/max RF signature (range > 1Km)

WiFi Access Point — 802.11 11a/11b/11g/11n

GPS

Users Standard: 32 users

Option: 64 users

Throughput 12 Mbps (Uplink) / 30Mbps (Downlink) shared amongst 32

or 64 users

Interfaces

Built-in Network

Interfaces 2 ea USB

3 ea Ethernet 10/100/1000-BT1 ea TFOCA fiber (Ethernet)

1 ea HDMI 2 ea VGA

1 ea Audio for headset

1 ea Radio for donor Radio (future)

Backhaul for Remote Connection to other eNodeBs

Supported WAN

Connections

Commercial Fiber, TFOCA, Copper, Ethernet, HCLOS and MANET radios – transport agnostic

Commercial Fiber, TFOCA, Copper, Ethernet VSAT, MANET Radio and Internet – transport

agnostic

Control and Management

Field Management Windows-based Tablet GUI

Connection Status of all EUDs
 Network Configuration
 LTE Band Selection
 Channel Size Selection

- RF Tuning

Add and Delete Users (SIMs)2 login profiles (user and admin)

Internal Processing for Data Services **Processor** Intel[®] i7 Quad Core **RAM** 16 GB

Storage 512 GB

i7 Operating System Linux CENTOS

System Management IntelView element mana

IntelView element management software runing

on the i7 processor is used for system and

network management

Control Switches (i) ON / OFF

(ii) Zeroize Switch - to completely wipe all stored data, security keys and base station setting



STINN LTEmp Front View



ISO-9001:2008 Registered

Cornet Technology, Inc.

6800 Versar Center, Springfield, VA 22151 USA • 703.658.3400 • 703.658.3440 fax • www.cornet.com

Product is Subject to U.S. Export Laws