HYC-N5007-34, 4.9 GHz 3 Watts Hybrid HT-OFDM/FDMA Tactical system
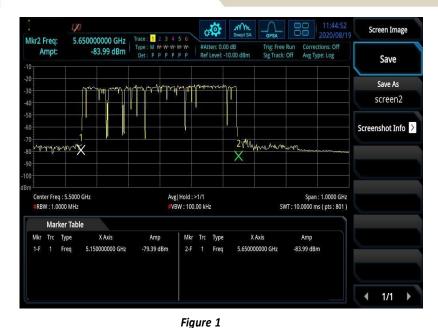
The HYC-NV5007-34 is a 4.9 GHz 3 Watts output power Hybrid HT-OFDM/FDMA tactical MESH device.

The 3W output power of ATHN5007-34 is designed for long-distance, complex and massive adjacent frequency interference areas, NLOS (non-line-of-sight) or OTM (On-The-Move) wireless communication. The model ATHN5007-34 has good enough link margin to overcome environmental obstacles, so that users simply reach the expected transmission quality.

The high power of HYC-N5007-34 is also very suitable for deployment in emergency hotspots and has effective coverage. With mobile unmanned vehicle radio units (UVNP models), it can easily achieve tactical mesh network applications and perform tasks. Sending back video streams from UVNP devices.

Operating Frequency	4900 - 5000 MHz
Modulation	HT-OFDM / FDMA (Frequency Division Multiple Access) († Manual switching by software)
Output power	34 dBm +/- 1.5 dB
Channel Bandwidth	2.5 ~ 40 MHz (HT-OFDM) 10 MHz Fixed (FDMA)
Channel Hopping Rate	4 ms (250 hops/sec)
Antenna System	2x2 MIMO
Antenna Connectors	Type N – Female Type TNC Female x 1 (GPS receiver)
Interfaces of UVNP5001R	3 pins (DC IN) M12 Ethernet ports x 2
IP Throughput of OFDM	200 Mbps in 40 MHz BW
IP Throughput of FDMA	20 Mbps in 10 MHz BW
Operating mode of OFDM	PTP/PTMP/Mesh Ad-Hoc
Operating mode of FDMA	PTP/PTMP
GPS	GPS coordinates and internet map database
Security	128 AES Encryption / proprietary protocol / MAC address control
Management & setup	Web-based / SNMP Agents / Secure Shell with RSA Key 2048 bits
System Self-testing	Power On Self Test (POST)
Dimension / Weight	245 X 220 X 90 mm, 3.85 Kg
Power Consumption	45 Watts @ DC 36~72V
Power feed	DC 36 – 72 V
Waterproof	IP67

FDMA Mode
(Frequency Division Multiple Access)

Figure 1

FDMA mode:

■ The maximum hopping range of a channel is 300 MHz as **figure 1**. (NOTE: ATHN4007-34 has 100 MHz operating frequency range.)

■ A 10 MHz channel bandwidth random hopping in operating frequency band.

■ A fixed 10 MHz bandwidth supports 64 QAM 2x2 MIMO and be with 20 Mbps IP throughput maximum.

■ FDMA mode supports PTP and PTMP Networks architecture

Figure 2

Figure 3

Figure 4

■ **figure 2 – figure 4** Frequency channel multiple access and hopping step is 1 MHz
■ Fixed hopping rate is 4 ms (250 hops per second)