Bittium

Bittium TAC WIN Smart Link 360™

Bittium TAC WIN Smart Link 360 functionality brings the performance of directional antennas to MANET networking.

The functionality is available with network nodes using Bittium TAC WIN Waveform™, including Bittium TAC WIN Tactical Router™ together with Bittium TAC WIN Radio Head IV™ and Radio Head III™, and Bittium Tough SDR Vehicular™ radio equipped with a steerable beam antenna.

The antenna beam direction control is fully synchronized with TAC WIN transmission allowing communications to any direction while mitigating the interference from other directions.

TAC WIN Smart Link 360 detects the neighbor nodes automatically which allows rapid and easy establishment of connections without operator's manual action. It supports full mesh topology and mobility with automatic node movement tracking, which makes it suitable for both link and mobile applications.

Supported by the advanced TAC WIN routing algorithm, TAC WIN Smart Link 360 is capable of automatically avoiding jamming by selecting the optimum beam direction towards the best available route.

Bittium TAC WIN Network Manager Tool™ provides the visualization of the network topology and beam deployment.

Benefits

- Brings performance of directional antennas to MANET networking
- Automatic detection of neighbor nodes and link establishment
- Enhanced link throughput/range
- Supports high mobility with automatic node direction tracking
- Enhanced interference and jamming avoidance, detection and localization

FOR MORE INFORMATION, PLEASE CONTACT:

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Bittium TAC WIN Smart Link 360™
Specifications

Features

- 360-degree MANET connectivity with the performance of directional antennas for network nodes using Bittium TAC WIN Waveform™
- Fully automatic neighbor direction detection and tracking allowing quick connection establishment and mobility support
- Interference / jamming avoidance
- Supports TAC WIN's jamming detection and localization
- Compatible with TAC WIN nodes using standard antennas (omnidirectional or directional)
- Frequency agnostic implementation, typical applications use NATO bands III/IV

Network Management

- Bittium Tactical Network Manager Tool for
  - Visualization of the network topology and beam deployment
  - Activation of the steerable beam antenna
  - Setting the mode of operation and defining its operational parameters such as allowed antenna directions
  - Link parameter monitoring

Supported Network Topologies

- MANET
- Point-to-multipoint
- Point-to-point (Link)

Supported Network Nodes

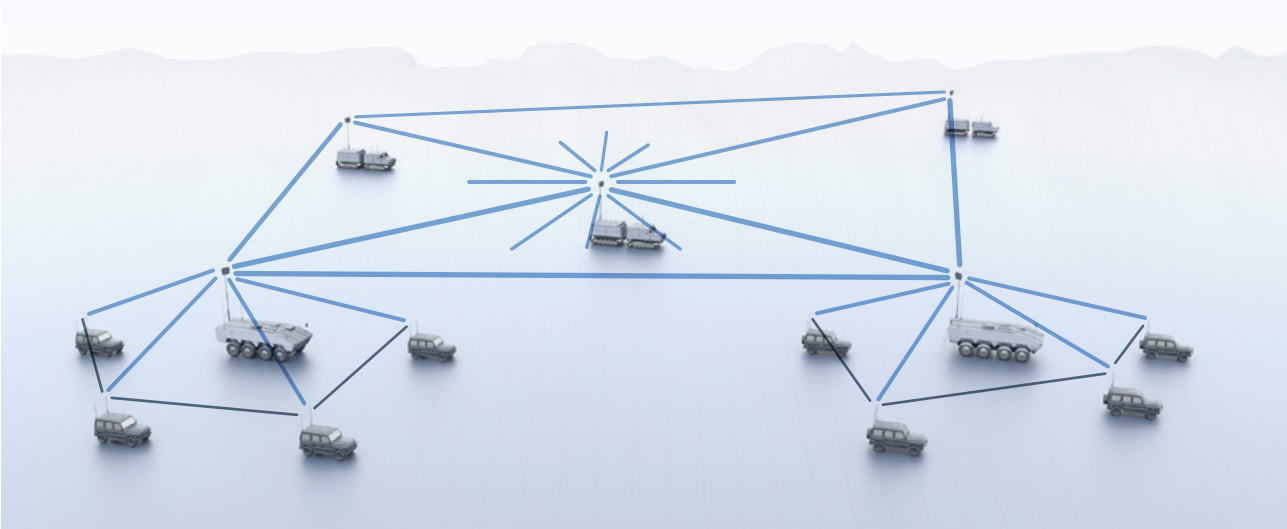
- Bittium TAC WIN Tactical Router together with TAC WIN Radio Head IV and Radio Head III
- Bittium Tough SDR Vehicular radio

Other

- Supports RS-485 control interface
- Available with only a software update and the antenna installation
- Compatible with steerable beam antennas (see table)
- Number of controllable antenna directions / beams: configurable, default 20

Steerable beam antenna options

Frequency range	1350-2400 MHz	4400–5000 MHz
Polarization	Nominally vertical	Nominally vertical
Radiation pattern	Directional/omni	Directional/omni
Gain (typical)	13–16 dBi	14 dBi
3 dB beamwidth (typical)	15° (Elevation), 35° (Azimuth)	25° (H-plane), 15° (E-plane)
Sidelobe level (typical)	-12 dB	-14 dB
VSWR	≤ 2.5	≤ 2.0
Power supply	19–32 VDC (<200 mA), MIL-STD-1275E	19–32 VDC (<200 mA), MIL-STD-1275E
Standard color	Black	Black
Radiator	Selectable patch array element, 20 elements	Selectable patch array element, 20 elements
Height (incl. mast mounts)	675 mm	446 mm
Diameter	590 mm	320 mm
Weight	20 kg	4.2 kg



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