WEPTAC A.G.
Weapons & Tactics Alliance Group

MANET SYSTEMS

SINGLE-CASE KIT · MISSION READY

TRELLISWARE TW-875 REPEATER RADIO CASE

Ten-Node Self-Forming Mesh — Omni Coverage with Directional Reach

One transit case, ten nodes — TW Ghost 875 radios with omni and directional patch antennas, delivering wide-area mobile connectivity without a single piece of fixed infrastructure.

WAG-TW-COM-10-R-1

THE TRELLISWARE TW-875 REPEATER RADIO CASE is a complete, fielded-ready ten-node mesh in a single transit case. Ten TW Ghost 875 radios ship with omni antennas for continuous 360-degree coverage and directional patch antennas to extend and stabilize key links across distance or difficult terrain. The network forms itself on power-up — no masts, no fixed sites, no infrastructure to stand up first — and reforms as elements move and disperse.

Ten radios bought loose are ten integration projects: antennas and cabling per node, charging to arrange, foam to cut, and a build-up window before the first packet moves. This case closes that gap at the point of purchase — **one part number, one lead time, one receiving action** — and pairs it with CloudRF, so the network is planned before it is carried.

CONFIGURATION
1 CASE
10 Radios · Omni & Patch Antennas

SHIPPING WEIGHT
39 LB
27.42 × 15.13 × 11.83 in

RADIOS
10× TW-875
TSM Barrage Relay waveform

NETWORK ROLE
SELF-FORMING
Every node relays · leave-behind capable

AES-256 COMSEC/TRANSEC · FIPS 197 · MIL-STD-810G · IP68 · TSM WAVEFORM · KATANA NB OPTIONAL · ATAK INTEGRATED

KIT OVERVIEW

MISSION-READY OUT OF THE CASE



CORE CAPABILITIES

TEN NODES, ONE CASE

Ten radios, omni and directional antennas and all cabling in a single 39 lb case. Nothing to source, fabricate or cut foam for.

SELF-FORMING, SELF-HEALING

Barrage Relay builds the network on power-up and reforms it as elements move and disperse. Net entry is under one second.

SHAPE IT, DON'T JUST USE IT

Directional patch antennas deliberately extend and stabilize key links; omnis hold 360-degree coverage for everyone else.

LEAVE-BEHIND REPEATERS

Each 875 runs unattended on internal battery, holding mission command across extended distance and dead ground.

Fielded as one ten-node net or distributed as repeaters across an area — the same case, the same antennas, no reconfiguration.

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WHAT THE KIT REMOVES

LOOSE RADIOS VS. FIELDED MESH

	TEN RADIOS PROCURED ALONE	REPEATER CASE — WAG-TW-COM-10-R-1
Antennas	Omni and directional sets specified and ordered node by node	Omni and directional patch antennas fitted for all ten
Cabling & Charging	Cabling fabricated and charging arranged ten times over	Cabling and charging pouched and fitted in the lid
Infrastructure	Fixed sites, masts or repeater towers to arrange and hold	None — the mesh self-forms out of the case
Link Shaping	Directional hardware sourced and integrated separately	Patch antennas included to extend and stabilize key links
Transport	No protection; case bought and foam cut for a ten-node fill	One fitted transit case — 39 lb
RF Planning	Coverage discovered on the ground, after the fact	CloudRF models node positions and hops beforehand
Procurement	Line items multiplied by ten, across vendors and lead times	One part number, one lead time, one receiving action

WAG-TW-COM-10-R-1 R1 · Ten TW Ghost 875 radios, omni and directional patch antennas, cabling 27.42 × 15.13 × 11.83 in **TOTAL 39 LB**

PRIMARY RADIO — TRELLISWARE TW GHOST 875

TSM BARRAGE RELAY · NET ENTRY UNDER 1 SECOND

RADIO SPECIFICATIONS

Overall Size	4.1 L × 2.5 W × 1.5 H in (103 × 64 × 37 mm)
Weight	1.0 lb (450 g) including built-in battery
Frequency Range	L-UHF 225–450 MHz · U-UHF 698–970 MHz L/S bands 1250–2600 MHz
Configurable Bandwidth	1.2, 3.6, 10, 20 MHz
Spectrum Pipelining	Dual-channel 2×10 or 2×20 MHz, user-selectable spacing · 20 or 40 MHz total occupied
Transmit Power	100 mW, 250 mW, 500 mW, 1 W, 2 W
Input Power	5 – 20 VDC · built-in rechargeable battery
Data Rate	Up to 32 Mbps point to point
Net Entry Time	Under 1 second
Waveforms	TSM · Barrage Beamforming (optional) Katana NB (optional)
Connectors	USB On-the-Go · RF TNC · GPS SMA
Security	Built-in AES-256 COMSEC/TRANSEC (FIPS 197)
Environmental	MIL-STD-810G · IP68
Operating Temperature	–20° to +55° C (–4° to +131° F)

NETWORKING

Network Coverage	Barrage Relay · multi-hop to 205 miles (330 km) per hop · hosts multiple waveforms · robust in harsh RF · throughputs of 50+ Mbps supported
Communication Services	Relay node for all TSM services (voice, data, PLI) · built-in or external GPS · IPv4 / IPv6 unicast, multicast and broadcast · TCP / UDP
Security	AES-256 encryption (AES standard, FIPS 197)
Application Support	Built-in web applications · over-the-air remote control · APIs for third-party integration · PLI with CoT, KML and JSON · Android integration

WHY THE TW-875 FOR A REPEATER CASE

The TW-875 is the low-profile, self-contained node: a simplified interface, an internal rechargeable battery and a form factor small enough to leave behind as an unattended relay. Ten of them fill one case, and they share common accessories with the TW Shadow 950, so a single set of cabling and spares supports a mixed fleet.

MISSION PLANNING — CLOUDRF

CLOUDRF.COM · PLAN BEFORE YOU DEPLOY

MODEL THE GROUND

COVERAGE, NOT LINE OF SIGHT

- Terrain, clutter and diffraction over global data
- Workable node positions fixed before step-off
- Fewer hops and fewer wasted relay-site moves

RUN IT OFFLINE

SOOTHSAYER SELF-HOSTED SERVER

- Same engine on a laptop or Jetson-class computer
- Global data side-loaded as offline packages
- Containers on Linux or Windows; no connectivity

ON THE OPERATOR'S MAP

ATAK INTEGRATION

- ATAK plugin tasks Area, Multisite, Points, Path APIs
- Live coverage plotted against moving callsigns
- Spotbeam modelling at 2 m resolution
- Open API for the wider mission system

TW Ghost 875 specifications are manufacturer-published data and are subject to change without notice. TrellisWare, TSM, Katana, Barrage Relay, Barrage Beamforming and TW Ghost are marks of TrellisWare Technologies, Inc. CloudRF and SOOTHSAYER are marks of Farrant Consulting Ltd. Contact WepTac A.G. for band configuration, antenna options, CloudRF or SOOTHSAYER licensing, and the FCC/IC or export status applicable to your requirement.

REQUEST A QUOTE OR A CAPABILITY BRIEF

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