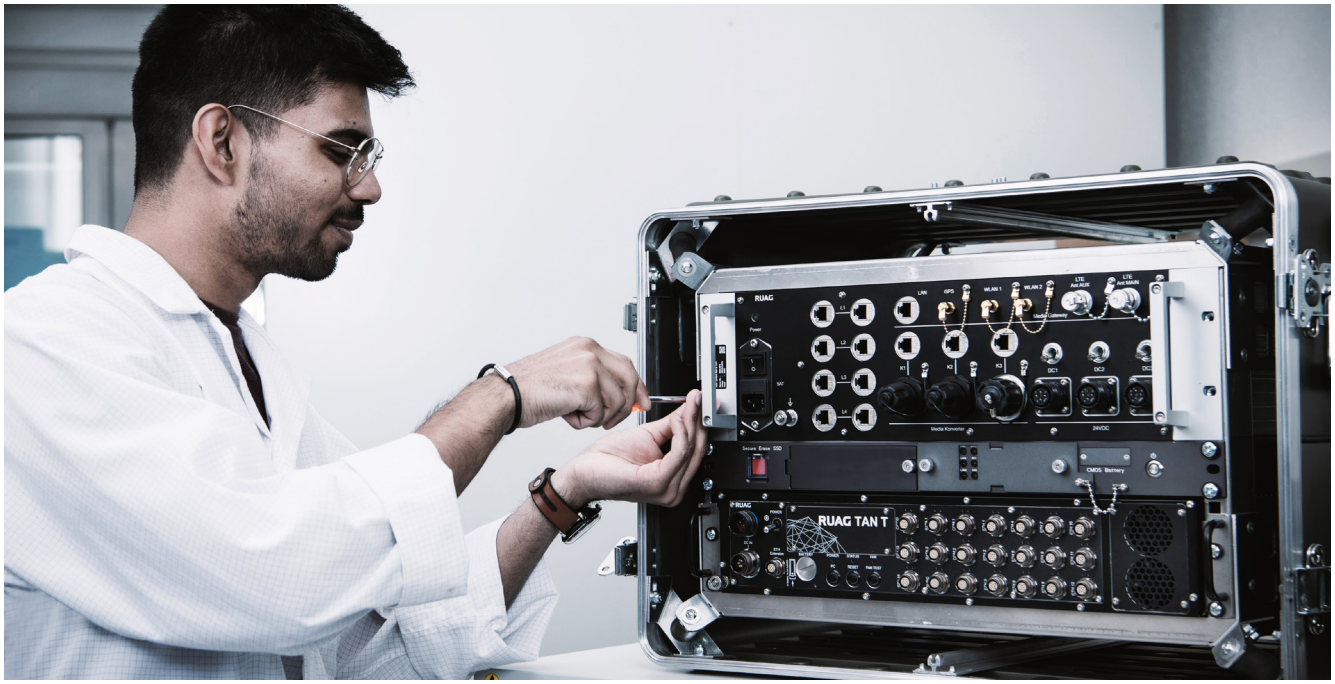
RUAG TACTICAL COMMUNICATION PLATFORM

Tactical Communication Hardware



↗ RUAG's integrated **Tactical Access Node (TAN) and Tactical Vehicle Switch (TVS)** voice and data routers enable interoperable connectivity between core networks, command centers, separate command and control systems and tactical mobile networks.

TAN and TVS provide international military forces and security organizations with an essential foundation for today's mission-critical communications infrastructure. They enable compact, interoperable network access for tactical communications systems.

They provide the entire routing and network functions and services of the RUAG ARANEA Software Core to seamlessly connect heterogeneous telecommunications networks with one another. They also provide secure and scalable functions for voice, data and imaging applications required for tactical communications by enabling connectivity to external, public, strategic and existing networks. The creation of an expanded all-IP network enables fixed-line communications equipment and radios to exchange information in order to improve situational awareness.

↗ Tactical Access Node – TAN

↗ MECHANICAL PROPERTIES

Hermetically sealed housing, carrying handles and 19-inch mounting adapter, reinforced for military use

Size (W×D×H)	380 × 132 × 268 mm Depth incl. plugs and connectors: 308 mm
Weight	approx. 10 kg
Cooling	Cooling function without air exchange from outside and inside the housing. An internal fan provides airflow when necessary.

↗ POWER SUPPLY

Input voltage	18-60 VDC or 110 VAC/230 VAC with external power supply
Input power	85 W standard, 105 W maximum (preliminary)

↗ ENVIRONMENTAL CONDITIONS

Temperature	-40...+55° C in operation -40...+55° C in storage MIL-STD-810G, 502.5 Procedures I and II, 501.5 Procedures I and II,
Relative air humidity	95% RH MIL-STD-810G, Method 507.5 Procedure II (heightened), Fig. 507.5-7, 10 cycles at 55° C
Vibration	MIL-STD-810G, Method 514.6, Cat. 5 truck/trailer loose cargo, Figure 514.6C-4.WLAN MIL-STD-810G, Method 514.6, Cat 20 Land Vehicle, Figure 514.6C-3 and Table 514.6C-VI; Figure 514.6C-2 and Table 514.6C-IV (device placed in an anti-vibration frame).
Fall	MIL-STD-810G, Method 516.6, Procedure IV (fall in transport box)
Shock	MIL-STD-810G, Method 516.6, Procedure I, with device placed in anti-vibration frame

↗ EMC

Radiation	MIL-STD-461F – CE102, Figure CE102-1 – RE102, 2 MHz to 18 GHz, Fig. RE102-4 base (curve Army)
Compatibility	MIL-STD-461F – RS101 (radiation susceptibility, magnetic field, 30 Hz to 100 kHz) Figure RS101-1. – RS103 (radiation susceptibility, voltage field, 50 V/m 2 MHz to 18 GHz – CS101 (conducted interference susceptibility, power cable, 30 Hz to 150 kHz, figures CS101-1 curve 2 (operating voltage =<28 Vdc), CS101-2) – CS114 (conducted interference susceptibility, cable feed 10 kHz to 200 MHz.), Figure CS114-1 for all cables (Table VI: 10 kHz-2 MHz. Curve #2, 2 MHz-30 MHz. Curve #2, 30 MHz-200 MHz curve #2) – CS115 (conducted interference susceptibility, cable feed, impulse excitation) Figure CS115-1 – CS116 (conducted interference susceptibility, attenuated sinusoidal transients, power cables and lines, 10 kHz to 100 MHz, Figure CS116-2, IMax = 10 A)

↗ NOTES

- Standard color: RAL 9005
- Other configurations upon request
- External fan, 19-inch mounting kit, a/b patch panel available upon request
- Some of the functions listed are only available as options

(ideal for integration in a 19" rack)

↗ Tactical Vehicle Switch - TVS

↗ MECHANICAL PROPERTIES

Housing	279 × 215 × 85 mm (W×D×H)
Weight	Approx. 4 kg
Color	Black (other colors available upon request)

↗ POWER SUPPLY

Power supply	as per MIL-STD-1275E
Input voltage	18-60 VDC
Power	40 W plus PoE power output

↗ ENVIRONMENTAL CONDITIONS

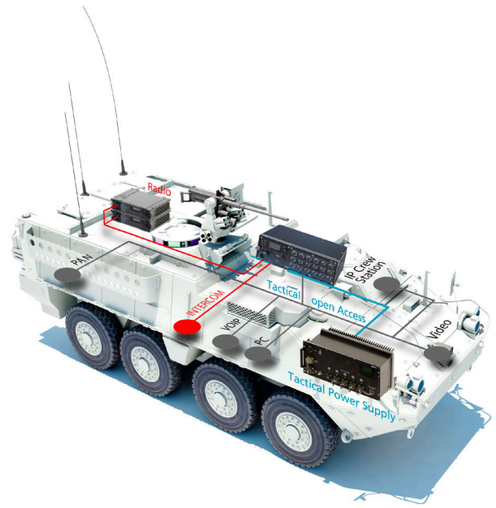
Temperature	-40...+70°C in storage -40...+55°C in operation
Waterproof	MIL-STD-810E, 506.3, Procedure II
Relative air humidity	95% RH, MIL-STD-810E, 507.3, Procedure I, Cycle 3
Shock	MIL-STD-810F, Method 516.5, Procedure I, Shock (30 g, 11 ms, sawtooth wave)
Vibrations	MIL-STD-810F, Method 514.4-4 (1 - 6.5 g RMS, 5 - 500 Hz)
EMC	MIL-STD 461E, IEC 61000-4-2, IEC 61000-4-4, IEC 61000-6-2

↗ EMC

MIL-STD 461E, IEC 61000-4-2, IEC 61000-4-4, IEC 61000-6-2

↗ DISPLAY

Design	Monochrome
Resolution	128 x 64 Pixel



(ideal for Vetronic/NGVA vehicle integration)

INTERFACES

↗ INTERFACES (NOT ALL INTERFACE COMBINATIONS CAN BE COMBINED IN ANY DESIRED NUMBER)

		TAN T210F	TAN T210T	TAN T230A	TVS 060C
Electrical Ethernet	10/100/1000 Base-T of which are PoE	6 -	4 -	10 -	12 8
SFP	10GBASE-X (optical)	-	-	1	-
Optical Ethernet	1000 Base-LX	-	2	-	-
Radio Terminal Adapter	Audio, PTT, COR/Squelch, Serial Interface	2	2	6	4
Service	1 × 1000 Base-T, 1 × USB 2.0, 1 × VGA	✓	✓	✓	✓
Analog telephony	FXS a/b FXO	16 4	16 4	-	-
E1	Primary multiplex port	3	3	-	-
EUROCOM	EUROCOM EES/D/1	2	2	-	-
SHDSL	G.SHDSL (2 wire)	-	2	-	-
WLAN access point	802.11 a/b/g (not in conformity with current CE standard)	-	1	-	-

INTEGRATED RADIOS

↗ RADIOS

Radio type	Analog cable	Digital cable
Rohde&Black SDTR VR5000	✓	✓
Thales SEM93	✓	-
ELBIT E-Lynx PNR-1000	✓	✓
Harris PRC-117G	✓	✓
ITT/Harris RT-1523	✓	✓
Telefunken Racoms HRM7400	✓	-
Thales PR4G Fastnet TRC 9310	✓	✓
Thales PRC-148 MBITR/JEM	✓	✓
Kongsberg MV600	✓	✓
TETRA radio Motorola MTM-800	✓	-
TETRAPOL: BER4M with control unit CCP	✓	-
Thales SOTAS IP	✓	-
ATM CommServerBw	-	✓