RUGGEDCOM WIN base stations

The RUGGEDCOM WIN7000 and RUGGEDCOM WIN7200 base stations are powered by OFDMA radio technology, which is robust in adverse environmental conditions and enables Non-Line-Of-Sight (NLOS) operation. Leveraging link adaptation algorithms, modulation and coding are continuously adapted to prevailing link conditions, ensuring an optimal balance between robustness and efficiency.

Mobile WiMAX compliance

- Based on IEEE 802.16e standard and WiMAX Forum Wave2 (MIMO) certification

Rated for harsh environments

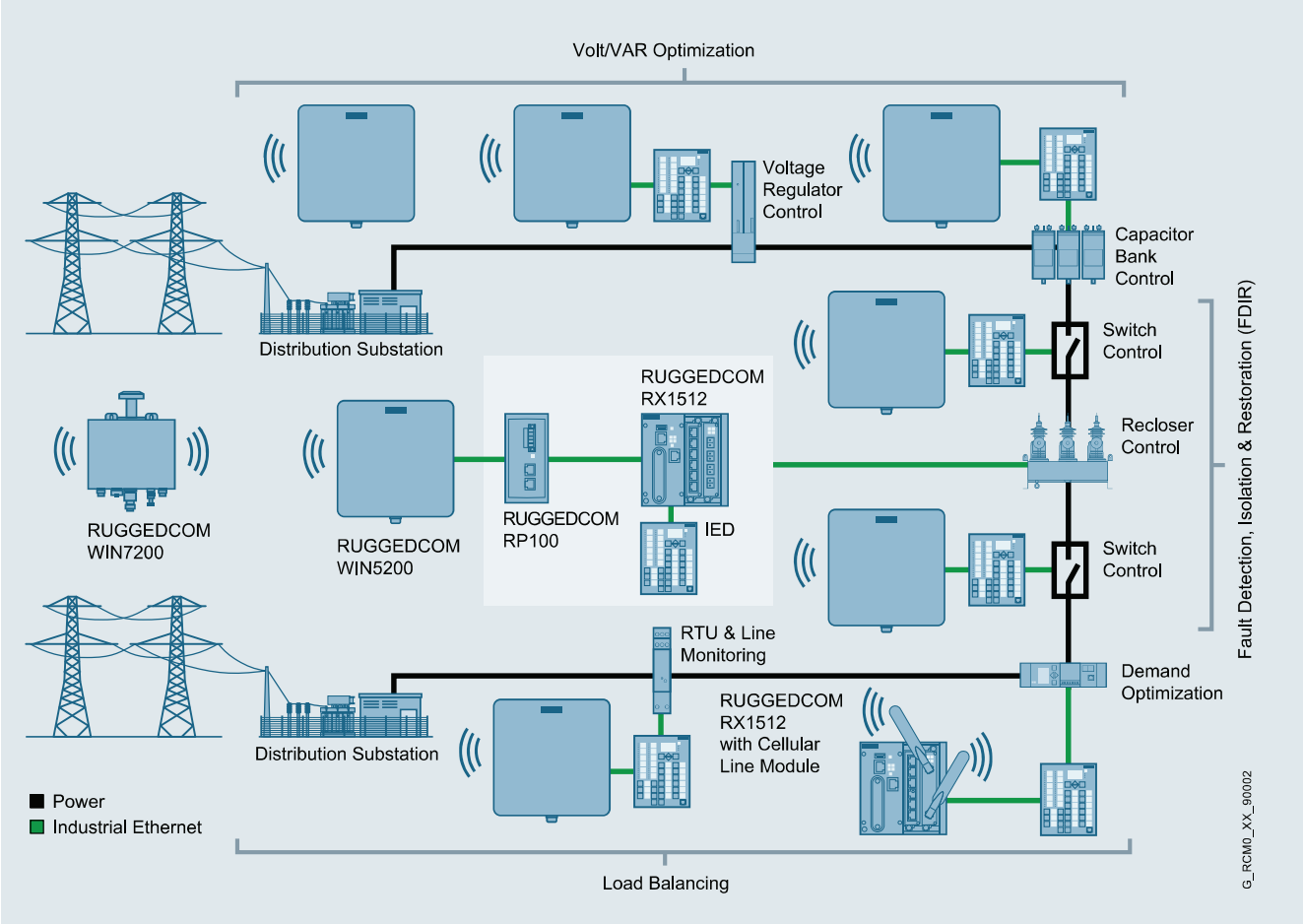
- IEEE 1613, IEC 61850-3, Class 1 Div 2 / ATEX Zone 2, MIL-STD 810F, MIL-STD 509.4 – salt fog
- -40° C to +75° C temperature range

Range

- Transmit and receive diversity combined with high power for improved reach and NLOS performance

High bandwidth

- RUGGEDCOM WIN has two built-in radios operating on the same frequency simultaneously (MIMO) to increase bandwidth (up to 40 Mbps) and spectral efficiency



Multi-service field area network for smart grid applications.

RUGGEDCOM WIN7000 high power base station

The RUGGEDCOM WIN7000 is a high power, broadband wireless base station, compliant to the IEEE 802.16e standard, designed for long range deployments in licensed frequency bands in harsh environments.

Available in a number of different frequency bands, the RUGGEDCOM WIN7000 has been designed around delivering maximum coverage where regulations permit high power operation. The single sector design can accomodate as many sectors as required at a given site, driven by coverage, bandwidth and subscriber density considerations.

RUGGEDCOM WIN7200 standard power base station

The RUGGEDCOM WIN7200 is a lightweight broadband wireless base station, compliant with the IEEE 802.16e standard, also supporting unlicensed frequency bands in harsh environments.

The RUGGEDCOM WIN7200 is a single sector lightweight base station that can be easily installed on poles, street lamps or walls, and provides connectivity to fixed or mobile end points. Connected via a single Power-over-Ethernet (PoE) connection and easily provisioned, the RUGGEDCOM WIN7200 reduces operational cost and complexity.

Specifications	RUGGEDCOM WIN7000	RUGGEDCOM WIN7200
Support of worldwide WiMAX deployments	1.X, 2.X and 3.X GHz bands	2.5,3.5,4.9,5.1,5.8 GHz bands
Flexible configurations	Dual PoE or fiber optic interfaces	Single PoE interfaces
Power output	2 x 36 dBm output power	2 x 27 dBm output power for 2.X GHz and 3.X GHz 2 x 24 dBm output power for 4.9 GHz and 5.1 GHz 2 x 21 dBm output power for 5.8 GHz
Width	290 mm (11.42 in)	257 mm (10.12 in)
Height	756 mm (29.76 in)	228 mm (8.98 in)
Depth	195 mm (7.68 in)	112 mm (4.41 in)
Net weight	15 kg (33.1 lb)	3 kg (6.6 lbs)
Maximum subscribers supported	128	64

Ordering options

RUGGEDCOM WIN7000	Article number		
High power base station, supporting 1350 MHz to 1400 MHz	RUM:WIN7014	–	...
High power base station, supporting 1400 MHz to 1525 MHz	RUM:WIN7015	–	...
High power base station, supporting 1800 MHz to 1830 MHz	RUM:WIN7018	–	...
High power base station, supporting 1785 MHz to 1805 MHz	RUM:WIN7018	–	...
High power base station, supporting 2300 MHz to 2400 MHz	RUM:WIN7023	–	...
High power base station, supporting 2496 MHz to 2690 MHz	RUM:WIN7025	–	...
High power base station, supporting 3400 MHz to 3600 MHz	RUM:WIN7035	–	...
Ethernet interfaces			
Ethernet copper interface			PEC
Single-mode fiber optic interface – DC power			SFD
Single-mode fiber optic interface – AC power			SFA

RUGGEDCOM WIN7000 – Accessories	Article number
Antennas	
Omni antenna 1350-1500MHz 5dBi 360°, N-female (order 2 per base station)	RUM:ANTN0018
GPS antenna for WIN7000 omni 1575.42MHz, +/- 1.023 30dB 360 degrees 3V TNC	RUM:ANTN0023
Sector antenna 3.3-3.8GHz 17dBi 65° X-Pol	RUM:ANTN0027
Sector antenna BST 3.3-3.8GHz 17dBi 90° X-Pol	RUM:ANTN0029
Omni antenna 3.4-3.7GHz 8.5dBi 360° N-male (order 2 per base station)	RUM:ANTN0040
Sector antenna 2300-2700MHz 16dBi 90° X-Pol	RUM:ANTN0048
Omni antenna 2.3-2.7GHz 9dBi 360° N-female (order 2 per base station)	RUM:ANTN0050
Sector antenna 1350-1500MHz 12dBi 90° X-Pol	RUM:ANTN0054
High gain sector 1.71-1.88 GHz 17. 5 dBi 90° X-Pol	RUM:ANTN0060
Omni antenna 1.7-1.9 GHz - 10 dBi N-female	RUM:ANTN0061
Sector antenna 2.3-2.7 GHz, 16 dBi 65° X-Pol	RUM:ANTN0068
Dual slant sector 1.71-1.880 GHz 17dBi 90°	RUM:ANTN0070
Antenna 1390-1525MHz 16.0 dBi	RUM:ANTN0071
Power supply	
Power supply AC/DC 85-264V input, 48V output, 240W	RUM:WIN1210
WIN1210, surge protection and barrier card for hazardous locations	RUM:WIN1210
DC-DC converter 130 VDC – 48 VDC for WIN7000 series	RUM:DCPS0008
Power cables	
Combined cable (Power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 30m	RUM:CBDC0110
Combined cable (Power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 60 m	RUM:CBDC0111
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 80 m	RUM:CBDC0112
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 30 m	RUM:CBDC0113
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 60 m	RUM:CBDC0114
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 80 m	RUM:CBDC0115
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 2 m	RUM:CBDC0131
Combined cable (power + Ethernet) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 2 m	RUM:CBDC0133
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 30 m	RUM:CBDC0120
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 60 m	RUM:CBDC0121
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 80 m	RUM:CBDC0122
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 30 m	RUM:CBDC0123
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 60 m	RUM:CBDC0124
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 80 m	RUM:CBDC0125
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 2 m	RUM:CBDC0135
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 120 m	RUM:CBDC0136
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 30 m	RUM:CBDC0137
Cable (power) for WIN1210, WIN1212 and WIN7000 for +48 VDC – 60 m	RUM:CBDC0138

(1) Cables and antennas are recommended but need to be ordered separately

RUGGEDCOM WIN7000 – Accessories	Article number
Sector antenna	
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 3 m	RUM:CBWR0009
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 30 m	RUM:CBWR0019
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 50 m	RUM:CBWR0020
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 100 m	RUM:CBWR0021
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 150 m	RUM:CBWR0022
Fiber optic cable (Ethernet), single-mode, 1310 nm, sealed LC duplex connectors to LC duplex – 200 m	RUM:CBWR0023
Mounting kit	
19" rack mount kit for two WIN7000 base stations	RUM:MKIT0060

RUGGEDCOM WIN7200	Article number
Standard power base station, supporting 2483 MHz to 2690 MHz	RUM:WIN7225
Standard power base station, supporting 3300 MHz to 3400 MHz	RUM:WIN7233
Standard power base station, supporting 3400 MHz to 3600 MHz	RUM:WIN7235
Standard power base station, supporting 3550 MHz to 3720 MHz	RUM:WIN7237
Standard power base station, supporting 4900 MHz to 5000 MHz	RUM:WIN7249
Standard power base station, supporting 5000 MHz to 5150 MHz – AeroMACS	RUM:WIN7251
Standard power base station, supporting 5725 MHz to 5850 MHz	RUM:WIN7258

RUGGEDCOM WIN7200 – Accessories	Article number
Antennas	
Sector antenna 3.3-3.8GHz 17dBi 65° X-Pol	RUM:ANTN0027
Sector antenna BST 3.3-3.8GHz 17dBi 90° X-Pol	RUM:ANTN0029
Omni antenna 3.4-3.7GHz 8.5dBi 360° N-male (order 2 per base station)	RUM:ANTN0040
Omni antenna 3.4-3.6GHz 6dBi 360° (order 2 per base station)	RUM:ANTN0043
Sector antenna 2300-2700MHz 16dBi 90° X-Pol	RUM:ANTN0048
Omni antenna 2.3-2.7GHz 9dBi 360° N-female (order 2 per base station)	RUM:ANTN0050
Omni antenna 2.5-2.7GHz 5.5dBi 360° N-male (order 2 per base station)	RUM:ANTN0051
Omni antenna 3.6-3.8GHz 6dBi 360° (order 2 per base station)	RUM:ANTN0057
Sector antenna 2.3-2.7 GHz, 16 dBi 65° X-Pol	RUM:ANTN0068
Sector antenna (dual slant) 4.9-5.95 GHz 16dBi 90°	RUM:ANTN0074
Cables	
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 2 m	RUM:CBWR0014-02M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 15 m	RUM:CBWR0014-15M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 30 m	RUM:CBWR0014-30M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 45 m	RUM:CBWR0014-45M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 60 m	RUM:CBWR0014-60M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 75 m	RUM:CBWR0014-75M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 90 m	RUM:CBWR0014-90M
Outdoor combined cable (power + Ethernet) for WIN7200 for +48 VDC – 500 m (batch for self-connectorization)	RUM:CBWR0014-500
Serial cable UART 3P to DB9F for WIN7200	RUM:CBDC0017
Power Supplies	
See RUGGEDCOM RP100/RP110 ordering information on page 15	