











SCADA SERVICES from Universat

Technical Specifications	Ku Broadband*	BGAN 9201	BGAN Ranger	BGAN M2M Hughes 9502	IsatData Pro (IDP-680)	Isat M2M (DMR-800D)	Iridium SBD 9522B	Iridium SBD 9602
								
Retail Price Guide (EUR)	€1250-€3500	€3750	€2880	€1299	€800	€690	€1300	€395
Overall Dimensions (mm)	Variable Depending on system	275 x 345 x 50	305 x 186 x 49	385 x 385 x 33 (Antenna/ ODU) 200 x 150 x 45 (IDU)	127 x 127 x 50	160 (dia) x 47 (h)	162 x 81 x 28 (IDU only)	41 x 45 x 13 (IDU only)
Weight (with Battery)	Variable Depending on system	2.8 kg	1.5 kg	1.5kg (IDU) 1.9kg(Antenna/ODU)	0.46kg	0.5kg	0.42kg	3 grams
Connectivity Ports	Ethernet, USB, RS 232	Ethernet, USB, ISDN, WLAN (802.11b)	RJ45 Ethernet Port, RJ11,RS232	RJ 45 Ethernet	RS232, RS 485, 4 x Digital	RS232, RS 485	RS232, Control Audio, Analogue Audio	RS232, GPS (OEM Integrated)
Power Requirements	110-240 VAC 10-32 VDC	110-240 VAC 10-32 VDC	110-240 VAC 15 VDC	12 or 24 VVDC	9-32 VDC	9-32 VDC	4.0 – 32 VDC	OEM Integrated
Power Consumption	Variable Depending on system	3.75W (idle) 24 W (oper)	2 W (stby) 22 W (oper)	<50mW (idle) 1 W (stby); 22 W (oper)	0.24 mW (stby) 10 W (oper)	0.24 mW (stby) 10 W (oper)	1.5W (stby) 4W (oper/call)	<1W (oper)
Temp	-40°C to +60°C	-25°C to +60°C	-20°C to +75°C	-40°C to +75°C	-40°C to +85°C	-40°C to +85°C	-30°C to +70°C	-40°C to +85°C
Conformity	Up to 100% RH	95% RH IP 55, 25MPH	95% RH IP 65	95% RH IP 65 (Ant) IP40 (ODU)	95% RH IP67 NEMA-4X	95% RH IP67 NEMA-4X	93% RH MIL-STD-810F (optional)	75% RH (OP) 93% (storage)
Service Band	Ku Band	L Band	L Band	L Band	L Band	L Band	L Band	L Band
Terminal Manufacture	iDirect	Hughes	Add Value	Hughes	SkyWave	SkyWave	Iridium	Iridium
Terminal Setup	Plug and Play	Plug and Play	Plug and Play	Plug and Play	Transparent option, Programming and integration option	Requires programming and integration	Requires programming and integration	Requires programming and integration
Other Add-on	Fixed Mount Kit	Fixed Mount Kit Solar Panels SMS activation NEMA 3 enclosure	Fixed Mount Kit	Fixed Mount Kit Solar Panels SMS activation	Fixed and Mobile Mount Kit	Fixed and Mobile Mount Kit	Fixed and Mobile Mount Kit, Antennas Voice, OEM Variants	OEM variants GPS Antenna connector



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Services	Standard IP, Streaming IP, Voice, SMS	Standard IP, Streaming IP, Voice	Standard IP, Streaming IP, Voice, SMS	Standard IP	Packet Data	Packet Data	Iridium Short Burst Data	Iridium Short Burst Data
Transport Protocols	TCP/IP, UDP/IP, ISDN	TCP/IP, UDP/IP, ISDN	TCP/IP, UDP/IP	TCP/IP, UDP/IP	Store and forward	Store and forward	Store and Forward	Store and Forward
Typical Performance	Up to 1Mbps Tx Up to 4 Mbps Rx (all IP)	Up to 492 kbps (IP Rx) Up to 64kbps (ISDN) 32-384kbps (stream)	Up to 384 kbps (IP Rx) Up to 240 kbps (IP Tx) 32/64kbps (stream)	Up to 100 kbps (IP Rx) Up to 100 kbps (IP Tx)	6400 bytes send 10000 bytes receive	Up to 192 bytes send Up to 100 bytes receive	Up to 1960 bytes send Up to 1890 bytes receive	340 bytes send (Max) 270 bytes receive (Max)
Latency	650ms	800ms	800ms	800ms	15-60 sec message size dependant	30 – 60 sec	5 sec 70 bytes 20 sec 1960 bytes	5 sec 70 bytes 20 sec 1960 bytes
Connection Charge	Fixed Monthly Rate	100KB Data	100KB Data	1KB	15 bytes	10.5 or 25.5 bytes	30 or 10 bytes Plan Specific	30 or 10 bytes Plan Specific
Pricing Units	N/A	Per MB	Per MB	Per MB	Per byte	Per message	Per byte	Per byte
Billing Increments	N/A	10KB Data	10KB Data	1KB	1 byte	10.5 or 25.5 bytes	1 byte	1 byte
Monthly Consumption	Fixed Monthly Rate	>10MB	>10MB	200kB-50MB	10kB-200kB	<10kB	Per byte	Per byte
Core Sectors	All Enterprise	All Enterprise	All Enterprise	Utilities, oil, gas, retail banking	Utilities, oil, gas, retail banking, Military	Utilities, oil, gas, retail banking, Military	Utilities, oil, gas, retail banking, Military	Utilities, oil, gas, retail banking, Military
Typical Applications	Large data transfer applications, video/image transfer	Large data transfer applications, video/image transfer	Large data transfer applications, video/image transfer	Remote fixed asset monitoring for telemetry and surveillance	Text Messaging Mobile Tracking, Military SA, Remote fixed asset monitoring	Track, monitor, remote fixed and mobile assets	Text Messaging Mobile Tracking, Military SA, Remote fixed asset monitoring	Text Messaging Mobile Tracking, Military SA, Remote fixed asset monitoring
The Universat Advantage (Value Add)	iWare* service compatible, Voice, Remote VPN Access, Advanced IP Routing, Improved Security Features	iWare service compatible, Voice	iWare service compatible, Remote SMS IP activation and C2, Voice	iWare service compatible, Embedded compatible, Others to be advised	iWare service compatible, Embedded GPS	iWare service compatible, Embedded GPS	iWare service compatible	iWare service compatible

Note: ** iWare is a global turnkey scalable internet based SCADA solution. See Universat iWare brochure for more information.