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Smart. Simple. Cellular.

Skywire Embedded Modems Technical Specs Comparison Chart

Use this comparison chart to choose the right Skywire® embedded modem for your IoT Project.
If you'd like to speak to a Sales representative, feel free to contact us.

	3G	LTE-M/NB-IoT	LTE-M	LTE CAT 1	LTE CAT 1	LTE CAT 1	LTE CAT 3	LTE CAT 4	LTE CAT 4	LTE CAT 4
	HSPA+	QBG96	SVZM20	S7648	S7618RD	GELS3	TSVG/TNAG	S7588	TC4EU	TC4NAG
Target Region										
Region	Global	Global	United States	North America	United States	United States	North America	North America	Europe	North America
Carrier	AT&T, T-Mobile	AT&T, Orange, Telstra, Telus, T-Mobile, Verizon, Vodafone	Verizon	AT&T, Bell, Rogers, Telus, T-Mobile, Verizon	Verizon	Verizon	AT&T, Verizon	AT&T, Verizon	Orange, Vodafone	AT&T, Bell, Rogers, Telus, T-Mobile, Verizon
Cellular Technology										
LTE Category	NA	LTE-M, NB-IoT	LTE-M	LTE CAT 1	LTE CAT 1	LTE CAT 1	LTE CAT 3	LTE CAT 4	LTE CAT 4	LTE CAT 4
LTE Frequency Bands	N/A	LTE-FDD: B1[2100], B2[1900] B3 [1800], B4[1700], B5[850], B8 [900], B12[700], B13[700], B18 [850], B19[850], B20[800], B26 [850], B28[700] | LTE-TDD: B39 [1900] (LTE-M only)	LTE B4 [1700], B13 [700]	LTE B2 [1900], B4 [1700], B12 [700]	LTE B4 [1700], B13 [700]	LTE B4 [1700], B13 [700]	TSVG LTE: B4[1700], B13[700] | TNAG LTE: B2[1900], B4 [1700], B5[850], B17[700]	LTE: B2 [1900], B4[1700], B5[850], B13[700], B17[700]	FDD B1[2100], B3[1800], B7 [2600], B8[900], B20[800]	FDD B2[1900], B4[1700], B5[850], B12[700], B13[700], B14[700], B66[1700], B71[600]
3G Technology Supported	UMTS, HSPA+	N/A	N/A	N/A	N/A	N/A	UMTS, HSPA+	HSPA+	HSPA+	DC-HSPA+
3G Frequency Band	B1[2100], B2[1900], B4[1700], B5 [850], B8[900]	N/A	N/A	N/A	N/A	N/A	TNAG: B2[1900], B5[850]	B2[1900], B5[850]	B1 [2100], B8 [900]	B2[1900], B4[1700], B5[850]
2G Technology Supported	GSM, EDGE, GPRS	GSM, EDGE, GPRS	N/A	N/A	N/A	N/A	GSM	N/A	GSM, EDGE	N/A
2G Frequency Band	GSM850/900, DCS1800, PCS1900	GSM850, EGSM900, DCS1800, PCS1900	N/A	N/A	N/A	N/A	TNAG: GSM850, PCS1900	N/A	GSM900, DCS1800	N/A
Data Speeds										
Download Rate and Upload Rate	**Download:** HSPA+: 21.0 Mbps | EDGE: 296 Kbps | GPRS: 107 Kbps **Upload:** HSPA+ 5.76 Mbps | EDGE: 236.8 Kbps | GPRS: 85.6 Kbps	**Download:** LTE-M: 375 Kbps | NB-IoT: 32 Kbps | GPRS: 107 Kbps | EDGE: 296 Kbps **Upload:** LTE-M: 375 Kbps | NB-IoT: 70 Kbps | GPRS: 85.6 Kbps | EDGE: 236.8 Kbps	**Download:** LTE-M: 375 Kbps **Upload:** LTE-M: 375 Kbps	**Download:** LTE: 10 Mbps **Upload:** LTE: 5 Mbps	**Download:** LTE: 10 Mbps **Upload:** LTE: 5 Mbps	**Download:** LTE: 10 Mbps **Upload:** LTE: 5 Mbps	**Download:** LTE: 100 Mbps | HSPA+: 42.0 Mbps | WCDMA: 384 Kbps | EDGE: 296 Kbps **Upload:** LTE: 50 Mbps | HSPA+: 5.76 Mbps | WCDMA: 384 Kbps | EDGE: 236.8 Kbps	**Download:** LTE: 150 Mbps | HSPA+: 42.2 Mbps **Upload:** LTE: 50 Mbps | HSPA+: 5.7 Mbps	**Download:** LTE: 150 Mbps | HSPA+: 42.0 Mbps | EDGE: 296 Kbps **Upload:** LTE: 50 Mbps | HSPA+: 5.76 Mbps | EDGE: 236.8 Kbps	**Download:** LTE: 150 Mbps | HSPA+: 42.0 Mbps **Upload:** LTE: 50 Mbps | HSPA+: 5.76 Mbps
Hardware										
Form Factor	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface	Skywire Interface
Dimensions	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm	29mm x 33mm x 10.5mm
Weight	8 grams	8 grams	8 grams	8 grams	8 grams	8 grams	8 grams	8 grams	8 grams	8 grams
Internet Protocols										
Network Stack Support	Integrated TCP/IP, UDP/IP, HTTP/HTTPS, FTP, SSL/TLS, IPv4/IPv6, NITZ, PING, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP/HTTPS, FTP/SFTP, SSL/TLS, IPv4/IPv6, NITZ, PING, MQTT, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, IPv4/IPv6, NITZ, MQTT, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, IPv4/IPv6, NITZ, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, IPv4/IPv6, NITZ, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP/HTTPS, FTP, SMTP, IPv4/IPv6, NITZ, PING, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, SMTP, IPv4/IPv6, NITZ, PING, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, IPv4/IPv6, NITZ, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, SMTP, IPv4/IPv6, NITZ, PING, PPP Stacks	Integrated TCP/IP, UDP/IP, HTTP, FTP, SSL/TLS, SMTP, IPv4/IPv6, NITZ, PING, PPP Stacks
SMS	SMS over GPRS	SMS supported	SMS supported	SMS over SGs	SMS over IMS and SGs	SMS over IMS	SMS over GPRS	SMS over IMS and SGs	SMS over IMS	SMS over IMS
Location										
GNSS	GPS, GLONASS	GPS, GLONASS, Beidou/Compass, Galileo, QZSS	N/A	N/A	N/A	N/A	GPS, GLONASS	N/A	N/A	GPS, Glonass, Beidou, Galileo, and QZSS
Power Supply										
Supply Voltage	3.5V - 4.3V (3.8V nominal)	3.4V to 4.3V (3.8V nominal)	3.1V - 4.5V (3.8V nominal)	3V - 5.5V (3.8V nominal)	3V - 5.5V (3.8V nominal)	3V - 5.5V (3.8V nominal)	3.5V - 4.3V (3.8V nominal)	3V to 5.5V (3.8V nominal)	3.4V - 4.2V (3.8V nominal)	1.65V - 5.5V
I/O Voltage	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V	1.65V - 5.5V
Current Consumption	Average 110 mA | Peak 215 mA | Idle 19 mA | Sleep N/A	Average 130 mA | Peak 900 mA | Idle 19 mA | Sleep 680 uA	Average 96 mA | Peak 500 mA | Idle 19 mA | Sleep 5.8uA	Average 135 mA | Peak 335 mA | Idle 35 mA | Sleep 18 mA	Average 177 mA | Peak 300 mA | Idle 54 mA | Sleep 24 mA	Average 135 mA | Peak 700 mA | Idle 48 mA | Sleep 8.6 mA	Average 250 mA | Peak 590 mA | Idle 40 mA | Sleep N/A	Average 66 mA | Peak 229 mA | Idle 14 mA | Sleep 11 mA	Average 135 mA | Peak 225 mA | Idle 40 mA | Sleep N/A	Average N/A | Peak N/A | Idle N/A | Sleep N/A
Interfaces										
Type	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)	UART, USB (USB 2.0 compliant)
USB Driver Support	**OS:** Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** PPP | NMEA | AT Console	**OS:** Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10, Linux **Drivers:** PPP | QMI | AT Console	**OS:** Windows 7, Windows 8, Windows 10, Linux **Drivers:** PPP | AT Console	**OS:** Windows XP | Windows Vista | Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | NCM | ACM | AT Console	**OS:** Windows XP | Windows Vista | Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | NCM | ACM | AT Console	**OS:** Windows XP | Windows Vista | Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** PPP | ECM | ACM | AT Console	**OS:** Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | RNDIS | QMI | NMEA | AT Console	**OS:** Windows XP | Windows Vista | Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | NCM | ACM | AT Console	**OS:** Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | RNDIS | ECM | QMI | NMEA | AT Console	**OS:** Windows 7 | Windows 8 | Windows 10 | Linux **Drivers:** MBIM | PPP | RNDIS | ECM | QMI | NMEA | AT Console
RF	Primary (U.FL), Rx Diversity (U.FL)	Primary, SISO DL (U.FL)	Primary, SISO DL (U.FL)	Primary (U.FL), Rx Diversity (U.FL)	Primary (U.FL), Rx Diversity (U.FL)	Primary (U.FL), Rx Diversity and MIMO DL 2x2 (U.FL)	Primary (U.FL), Rx Diversity and MIMO DL 2x2 (U.FL)	Primary (U.FL), Rx Diversity and MIMO DL 2x2 (U.FL)	Primary (U.FL), Rx Diversity and MIMO DL 2x2 (U.FL)	Primary (U.FL), Rx Diversity and MIMO DL 2x2 (U.FL)
SIM										
Type	3FF SIM card slot	Integrated Verizon SIM, external 3FF SIM slot	3FF SIM card slot	3FF SIM card slot	3FF SIM card slot	3FF SIM card slot	3FF SIM card slot	3FF SIM card slot	3FF SIM card slot	Integrated Verizon SIM, external 3FF slot
Approvals										
Regulatory Certifications	GCF, PTCRB, CE/RED, FCC, IC, Anatel	PTCRB, CE/RED, FCC, IC	FCC	PTCRB, FCC, IC	FCC	FCC	PTCRB, FCC	PTCRB, FCC, IC	CE/RED	FCC, IC, PTCRB (In Progress)
Carrier Approvals	AT&T, Rogers, Telus	AT&T, Rogers (In-Progress), Telus (In-Progress), Verizon	Verizon	AT&T, Rogers (In-Progress), Telus (In-Progress)	Verizon	Verizon	AT&T, Rogers, Verizon	AT&T, Verizon		AT&T (In-Progress), Rogers (In-Progress), Telus (In-Progress), Verizon (In-Progress)
Compliance	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant	RoHS compliant
Temperature Range										
Industrial Grade	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Support and Warranty										
	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty	1 Year standard warranty