

Active - Cellular	Standard LTE Modem with GNSS				LTE Advanced Modems with GNSS			5G-NR with GNSS	LTE 450	GSM-R
Region	EMEA		US (AT&T, Rogers)	APAC	EMEA, US (AT&T, Verizon, Sprint)	APAC (Telstra)	NA, LATAM, EMEA, APAC	EMEA on request: NA, APAC	EMEA	EMEA
Product Option Codes	"-L", "-L-G"		"-Lbb", "-Lbb-G"	"-Lg", "-Lg-G"	"-Ld", "-Ld-G"	"-Lc", "-Lc-G"	"-Lp, -Lp-G"	"-N", "-N-G"	"-La"	"-Gr"
Modem Vendor, Type	u-blox TOBY-L210	Telit LE910C4-EU	u-blox TOBY-L200	u-blox TOBY-L280	Sierra Wireless MC7455	Sierra Wireless MC7430	Telit LN920A12-WW	Telit FN980	Cellient MPL200	Triorail TRM-5
Status / Effective	Available	Q3/2022	Available	Available	Available	Available	Available	Available	Available	Available
Supported Routers (EoL not listed)	NB800(Rev.≥B), NG800, NB1601(Rev.≥B), NB1800(Rev.≥B), NB1810(Rev.≥B), NB2700, NB2800, NB2810, NB3701, NB3800(Rev.≥B)	NB3800(Rev.≥C), NB3701(Rev.≥C), NB2800(Rev.≥C), NB28100(Rev.≥C), NB1800(Rev.≥C), NB1810(Rev.≥C)	NB800(Rev.≥B), NG800, NB1601(Rev.≥B), NB1800(Rev.≥B), NB1810(Rev.≥B), NB2700, NB2800, NB2810, NB3701, NB3800(Rev.≥B)	NB800(Rev.≥B), NG800, NB1601(Rev.≥B), NB1800(Rev.≥B), NB1810(Rev.≥B), NB2700, NB2800, NB2810, NB3701, NB3800(Rev.≥B)	NB1800(Rev.≥B), NB1810(Rev.≥B), NB2700, NB2800, NB2810, NB3800(Rev.≥B)	NB1601(Rev.≥B), NB1800(Rev.≥B), NB1810(Rev.≥B), NB2700, NB2800, NB2810, NB3800(Rev.≥B)	NB3800(Rev.≥C), NB2800(Rev.≥C), NB28100(Rev.≥C), NB1800(Rev.≥C), NB1810(Rev.≥C)	NB3800(Rev.≥C), NB2800(Rev.≥C), NB28100(Rev.≥C), NB1800(Rev.≥C), NB1810(Rev.≥C)	NB2700, NB2800, NB2810, NB3701, NB3800(Rev.≥B)	NB1601(Rev.≥B), NB3701, NB3800(Rev.≥B)
5G NR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n1, n3, n7, n8, n20, n28, n38, n40, n77, n78	n.a.	n.a.
LTE Bands	B1, B3, B5, B7, B8, B20	B1, B3, B7, B8, B20, B28	B2, B4, B5, B7, B17	B1, B3, B5, B7, B8, B28	B1, B2, B3, B4, B7, B12, B13, B20, B5, B25, B26(850), B29, B41, B30	B1, B3, B7, B8, B18, B19, B21, B5, B38, B40, B28, B39, B41	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B38, B39, B40, B41, B42, B43, B48 (CBRS), B66, B71	B1, B3, B7, B8, B20, B28, B38, B40	B3, B7, B20, B31	n.a.
DC-HSPA+/UMTS Bands (MHz)	B1(2100), B2(1900), B5(850), B8(900)	B1(2100), B3(1800), B8(900)	B1(2100), B2(1900), B4(AWS), B5(850), B8(900)	B1(2100), B2(1900), B5(850), B8(900)	B1(2100), B2(1900), B3(1800), B4(1700), B5(850), B8(900)	B1(2100), B5(850), B6(800), B8(900), B9(1700), B19(800)	B2, B4, B5, B8, B9,	B1(2100), B3(1800), B8(900)	B1(2100), B8(900)	n.a.
GSM/GPRS/EDGE Bands (MHz)	B2(1900), B3(1800), B5(850), B8(900)	B3(1800), B8(900)	B2(1900), B3(1800), B5(850), B8(900)	B2(1900), B3(1800), B5(850), B8(900)	n.a.	n.a.	n.a.	n.a.	B8(900), B3(1800)	GSM-R, B8(900), B3(1800)
LTE Category	4	4	4	4	6	6	12	20	3	n.a. (GPRS class 10)
MIMO	2x2	2x2	2x2	2x2	2x2	2x2	2x2	4x4	2x2	n.a. (SISO)
Data Rates (max): downlink / uplink	150 Mbps / 50 Mbps	150 Mbps / 50 Mbps	150 Mbps / 50 Mbps	150 Mbps / 50 Mbps	300 Mbps / 50 Mbps	300 Mbps / 50 Mbps	600 Mbps / 150 Mbps	5.5 Gbps / 2.7 Gbps	100 Mbps / 50 Mbps	85.6 kbps / 42.8 kbps
Voice, Audio	yes - CSFB	yes - CSFB, VoLTE	yes - CSFB	yes - CSFB	n.a.	n.a.	n.a.	n.a.	n.a.	yes
GNSS Support	GPS, Galileo, GLONASS, BeiDou	GPS, Galileo, GLONASS, BeiDou	GPS, Galileo, GLONASS, BeiDou	GPS, Galileo, GLONASS, BeiDou	GPS, Galileo, GLONASS, BeiDou	GPS, GLONASS	GPS, Galileo, GLONASS, BeiDou	GPS, Galileo, GLONASS, BeiDou	n.a.	n.a.
Tracking Sensitivity	Up to -165 dBm	up to -160 dBm	Up to -165 dBm	Up to -165 dBm	Up to -160 dBm	Up to -160 dBm	TBD	Up to -161 dBm	n.a.	n.a.
Assisted GPS	yes	yes	yes	yes	yes	yes	TBD	yes	n.a.	n.a.
GNSS Chipset	u-blox M8	Modem built-in	u-blox M8	u-blox M8	Modem built-in	Modem built-in	Modem built-in	Modem built-in	n.a.	n.a.
Required NRSW	3.8.0.114 and later	4.7.1.100 and later	4.2.0.104 and later	3.8.0.114 and later	4.0.0.100 and later	4.0.0.100 and later	4.7.0.100 and later	4.7.0.100 and later	4.0.0.100 and later	4.0.0.100 and later
Form Factor	miniPCIe / LGA	miniPCIe	miniPCIe / LGA	miniPCIe / LGA	miniPCIe	miniPCIe	M2 (with miniPCIe adapter)	M2 (with miniPCIe adapter)	miniPCIe	miniPCIe