

## LN93x Series

LTE 150/50 | DC-HSPA+ 42.0/11.5 | M.2 Data Cards



### M.2 Data cards for Mobile Computing

The M.2 family data-cards deliver High speed data rates on LTE and offer a cellular connection for PC OEM device manufactures. M.2 form factor data-card is particularly well-suited for devices with very high throughput requirements such as, PDAs, e-readers, tablets, and mobile computing or consumer electronics in general. The M.2 family data cards are a natural transition from the Mini Card PCI and Half Mini Card to a smaller form factor. The M.2 family is optimized for mobile computing world with lower power consumption, high speed USB interfaces and extended RF performance with full variety of global coverage.

M.2 family data cards support multiple operating systems and has several unique Intel (LN930/2) features such as Adaptive Clocking, Selective Suspend, Link Power Management, and Dynamic Power Thermal Management in support of an always on/always connected (AOC) user experience.

### LN930 variant

The LN930 M.2 module achieves download rates to 150 Mbps through support of 3GPP release 9. There are two variant of the LN930 M.2 LTE data card to support the various RF frequency bands and band combinations deployed worldwide.

- LN930 LTE Module – North America, Europe, roaming in Asia Pacific
- LN930-AP LTE APAC Module – Asia Pacific
- LN930-AU LTE Module – Europe and Asia

### LN932 variant

The LN932 M.2 module achieves download rates to 300 Mbps through support of 3GPP release 10 LTE Carrier Aggregation. There are two variant of the LN932 M.2 LTE Advanced data card to support the various RF frequency bands and band combinations deployed worldwide.

LN932 LTE Advanced Module – North America, Europe, roaming in Asia Pacific.

### LN931-NAG

The LN931 M.2 module achieves download rates to 100 Mbps through support of 3GPP release 9. The LN931-NAG variant is offered for North America market configurations which include high sensitivity GNSS/GPS functionality and CDMA /EV-DO.

#### AVAILABLE FOR

EMEA

North America

Latin America

APAC

Korea

Australia

**Complete, Ready  
to Use Access to the  
Internet of Things**



IoT MODULES



IoT CONNECTIVITY



IoT PORTAL

		LN930 / LN930-AP / LN930-AU	LN932	LN931-NAG
Technology		LTE FDD cat. 4 W-CDMA 2G	LTE FDD cat. 6 W-CDMA 2G	LTE FDD cat. 3 W-CDMA CDMA 1x EVDO Rev A & Rev B 2G
Bands	Carrier Aggregation	N/A	<b>FDD DL 2CA, 40MHz Inter-band:</b> Band 1 plus one from bands 5/8/18/19/26 Band 2 plus one from band 4/5/13/17/29 Band 3 plus one from band 5/8/19/20/26 Band 4 plus one from band 5/13/17/29 Band 7 plus one from band 20/3 <b>Intra Band:</b> Band 4	N/A
	LTE	<b>LN930:</b> 1-5, 7, 8, 13, 17, 18, 19, 20 <b>LN930-AP:</b> 1, 3, 8, 9, 11, 18, 19, 21, 26 <b>LN930-AU:</b> 1, 3, 7, 8, 20, 28	1, 2, 3(9), 4, 26(5,18,19), 7, 8, 13, 17, 20, 29, 30	2, 4, 5, 13, 17, 25
	CDMA	N/A	N/A	BC0, BC1
	3G	<b>LN930:</b> 1, 2, 4, 5, 8 <b>LN930-AP:</b> 1, 6, 8, 11, 19 <b>LN930-AU:</b> 1, 8	1, 2, 4, 5, 8	1, 2, 4, 5, 8
	2G	<b>LN930:</b> 2, 3, 5, 8	2, 3, 5, 8	2, 3, 5, 8
Data throughput		<b>LTE FDD:</b> DL: 150 Mbps, UL: 50 Mbps <b>HSPA+:</b> DL: 42 Mbps, UL: 5.7 Mbps	<b>LTE FDD:</b> DL: 300 Mbps, UL: 50 Mbps <b>HSPA+:</b> DL: 42 Mbps, UL: 5.7 Mbps	<b>LTE FDD:</b> (DL/UL: 100/50 Mbps) @20MHz <b>HSPA+:</b> Rel8 (DL/UL: up to 42/11 Mbps)
Operating temperature		-10 °C to +55 °C	-10 °C to +55 °C	-10 °C to +60 °C
Application Interface		MBIM, C-AT/NCM	MBIM, C-AT/NCM	Gobi API
USB		USB 2.0 HS	USB 2.0 HS and SSIC	USB 2.0 HS
Antenna	Diversity	•	•	•
	MIMO	•	•	•
	Connectors	Main, GNSS/Aux	Main, GNSS/Aux	Main, GNSS/Aux
	Control	4 GPO pins	4 GPO pins	4 GPO pins
Tools		Firmware Switching, Noise Profiling, GNSS tools, Tracing, Debuging	Firmware Switching, Noise Profiling, GNSS tools, Tracing, Debuging	GNSS tools, Tracing, Debuging
OS Support		Win 7, Win 8, Win 8.1, Win 10, Linux, Android	Win 7, Win 8, Win 8.1, Win 10, Linux, Android	Windows
Location services		GPS, A-GPS, GLONASS	GPS, A-GPS, GLONASS	GPS, GLONASS
Certifications		<b>LN930:</b> NCC/CCC/FCC/PTCRB/CE/GCF Operator IOT target: - NA: AT&T, Verizon - EMEA: Vodafone, Telefonica, Orange <b>LN930-AP:</b> Jate/Geteki Operator IOT target: Docomo, KDDI, LN930-AU: CE/GCF <b>LN930-AU:</b> CE/GCF	<b>UL/NCC/CCC/FCC/PTCRB/CE/GCF</b> Operator IOT target: - NA: AT&T, Verizon, - EMEA: Vodafone, Telefonica, Orange	<b>FCC/PTCRB/CE</b> Operator IOT: - NA: AT&T, Verizon and Sprint