

# Router Overview

This page gives an overview of the different NetModule Routers. All models share the same software, although it is provided as different images, one per product line. Read the [NRSW factsheet](#) to get an overview over the software features.

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## Railway Routers

### PDF

NetModule Railway Router	NB3700 Series				NB3800 Series
	NB3700	NB3710	NB3701	NB3711	NB3800
Ethernet	5 FE				2 GbE + 3 FE
SIMs	2 mini	4 mini	2 mini	4 mini	4 mini
Module Slots	2	6	2	6	6
Max Cellular (onboard + module)	0 + 2	0 + 4	0 + 2	0 + 4	0 + 4
Max WiFi (onboard + module)	0 + 2	0 + 2	0 + 2	0 + 2	0 + 2
Max Antenna Connectors	5 TNC	9 TNC	5 TNC	9 TNC	11 TNC
Cellular Standards	LTE, HSPA+UMTS, GSM, GSM-R, LTE750, LTE450				LTE Advanced, LTE, HSPA+UMTS, GSM, GSM-R, LTE750, LTE450
LTE Category	Cat 4	Cat 4	Cat 4	Cat 4	Cat 4 or Cat 6
Bands Standard Modem (other regions on request)	LTE: B1, B3, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up				LTE: B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41 UMTS: B1, B2, B3, B4, B5, B8 300 Mbps down / 50 Mbps up
GNSS	GNSS on cellular modem or GNSS Advanced module				
WiFi/LP-Wireless Standards	802.11abgn 2.4/5GHz		802.11abgn+ac 2.4/5GHz		
Core System	400MHz Single Core PPC, 256MB RAM, GB eMMC		1.3GHz Dual Core ARM, 1024MB RAM, 4GB eMMC		
LTE-WiFi Throughput	40Mbps		200Mbps		
LAN-WiFi Throughput	40Mbps		90Mbps		200Mbps
LAN-LAN Throughput	70Mbps		90Mbps		930Mbps
Digital I/O	2/2				2/2 on Extension (**)
Serial Port	1 instead of Digital I/O	1 on Extension Port	1 instead of Digital I/O	1 on Extension Port	
Extension Ports	n/a	2	n/a	2	2
Extension Options	n/a	IBIS, CAN, RS-232, RS-485, Audio in/out	n/a	IBIS, CAN, RS-232, RS-485, Audio in/out	
Extended Data Storage	32/64GB eMMC				32/64GB eMMC, 128/256/512GB/1TB SSD
USB Port	USB 2.0 Host				
Customer Applications	SDK		SDK, LXC Virt.		
Input Voltage	24/36/48VDC (standard) or 72/96/110VDC (optional)				
Dimension w/h/d in mm	190/86/104	190/105/104	190/86/104	190/105/104	190/121/106
Weight in gr	1.400		1.500		1.900
Mounting Options	Wall mounting / brackets				
Temperature Range (Operational)	EN50155 TX, -40°C to +70°C (Storage 85°C)	12-48VDC, max. 5 radio modules: EN50155 TX, -40 °C to +70 °C 72-110VDC, max. 3 radio modules: EN50155 TX, -40 °C to +70 °C 72-110VDC, max. 4 radio modules: EN50155 T2, -40 °C to +55 °C (Storage 85°C)	EN50155 TX, -40°C to +70°C (Storage 85°C)	12-48VDC, max. 5 radio modules: EN50155 TX, -40 °C to +70 °C 72-110VDC, max. 3 radio modules: EN50155 TX, -40 °C to +70 °C 72-110VDC, max. 4 radio modules: EN50155 T2, -40 °C to +55 °C (Storage 85°C)	24-48VDC, max. 4 radio modules: EN50155 TX, -40 °C to +70 °C 24-48VDC, max. 6 radio modules: EN50155 T1, -25 °C to +55 °C 72-110VDC, max. 4 radio modules: EN50155 TX, -40 °C to +70 °C 72-110VDC, max. 5 radio modules: EN50155 T2, -40 °C to +55 °C (Storage 85°C)
Compliance	CE/RED, Railway according to EN50155, EN45545, UN ECE R118(**)				

\* planned, \*\* under development

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# Vehicle Routers

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NetModule Vehicle Router	NB800 Series	NB2700 Series		NB2800 Series
	NB800	NB2700	NB2710 (EOL)	NB2800
Ethernet	1 FE	5 FE	4 FE	2 GbE
SIMs	1 micro	2 mini	6 mini	4 micro
Module Slots	1 (shield)	2	3	4
Max Cellular (onboard + module)	1 + 0	0 + 2	0 + 2	0 + 4
Max WiFi (onboard + module)	1 + 0	0 + 1	0 + 1	0 + 2
Max Antenna Connectors	4 SMA	5 SMA	7 SMA	10 FAKRA/SMA
Cellular Standards	LTE, HSPA+UMTS, GSM, NB1(**), M1(**)	LTE, HSPA+UMTS, GSM, GSM-R, LTE750, LTE450		
LTE Category	Cat 4, Cat NB1/M1(**)			Cat 4 or Cat 6
Bands Standard Modem (other regions on request)	LTE: B1, B2, B3, B4, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up	LTE: B1, B3, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up		LTE: B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41 UMTS: B1, B2, B3, B4, B5, B8 300 Mbps down / 50 Mbps up
GNSS	on Extension(**)	modem based or GNSS Advanced module		modem based or GNSS Advanced module
WiFi/LP-Wireless Standards	802.11abgn (max 10 clients), BT/BLE4.2	802.11abgn 2.4/5GHz		802.11abgn+ac 2.4/5GHz
Core System	600MHz Single Core ARM, 512MB RAM, 4GB eMMC	400MHz Single Core PPC, 64MB RAM, 128MB NAND		1.3GHz Dual Core ARM, 1024MB RAM, 4GB eMMC
LTE-WiFi Throughput	100 Mbps	40Mbps		200Mbps
LAN-WiFi Throughput	100 Mbps	40Mbps		200Mbps
LAN-LAN Throughput	n/a	70Mbps		930Mbps
Digital I/O	1/1 on Extension	2/2		2/2 on Extension (**)
Serial Port	1 on Extension	1		1 on Extension
Extension Ports	1	n/a	1	1
Extension Options	COM-IO, Dual-CAN, SubGHz(**), CanG(**)	n/a	IBIS, CAN, RS-232, RS-485, Audio in/out	IBIS, CAN, RS-232, RS-485, Audio in/out
Extended Data Storage	n/a	32/64GB eMMC		32/64GB eMMC, 128/256/512GB/1TB SSD
USB Port	USB2.0 Host	USB 2.0 Host		USB 3.0 Host
Customer Applications	SDK, LXC Virt.	SDK		
Input Voltage	12/24VDC	24/36/48VDC		24/36/48VDC with IGN
Dimension w/h/d in mm	85/111 x 32 x 110	190/40/104	190/45/104	190/58/140
Weight in gr	250	700		1'200
Mounting Options	Wall/Brackets	Wall mounting / brackets		
Temperature Range (Operational)	-40°C to +70°C	-25°C to +70°C		-25°C to +70°C
Compliance	CE/RED, FCC/IC(**), UN ECE R10, UN ECE R118	CE/RED, UN ECE R10, UN ECE R118	CE/RED, UN ECE R10	CE/RED/FCC, UN ECE R10, UN ECE R118

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# Industrial Routers

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NetModule Industrial Router	IoT Line	Industrial Line			
	NB800	NB1600	NB1601	NB1800	NB1810
Ethernet	1 FE	2 FE	4 FE	2 GbE +1 SFP	1 GbE/SFP +1 GbE +4 GbE PoE+
SIMs	1 micro	1 mini	2 micro	2 micro	
Module Slots	1 (shield)	2	1 + 1 (shield/ext. module)	2 + 2 (ext. module)	
Max Cellular (onboard + module)	1 + 0	0 + 1	1 + 1	0 + 2	
Max WiFi (onboard + module)	1 + 0	0 + 1	1 + 0	0 + 2	
Max Antenna Connectors	4 SMA	5 SMA	7 SMA	5 SMA	
Cellular Standards	LTE, HSPA+UMTS, GSM, NB1(**), M1(**)	LTE, HSPA+UMTS, GSM, LTE750, LTE450, GSM-R	LTE, HSPA+UMTS, GSM, NB1(**), M1(**), LTE750(**), LTE450(**), GSM-R	LTE Advanced, LTE, HSPA+UMTS, GSM, LTE750, LTE450	
LTE Category	Cat 4, Cat 1(**)	Cat 4	Cat 4, Cat 1(**)	Cat 4 or Cat 6	
Bands Standard Modem (other regions on request)	LTE: B1, B2, B3, B4, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up	LTE: B1, B3, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up	LTE: B1, B3, B5, B7, B8, B20 UMTS: B1, B2, B5, B8 GSM: B5, B8, B3, B2 150 Mbps down / 50 Mbps up	LTE: B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41 UMTS: B1, B2, B3, B4, B5, B8 300 Mbps down / 50 Mbps up	
GNSS	on Extension(**)	GPS of cellular modem	GNSS chip with GPS, GLONASS, Galileo, BeiDou	GPS of cellular modem (**)	
WiFi/LP-Wireless Standards	802.11abgn (max 10 clients), BT/BLE4.2	802.11abgn	802.11abgn (max 10 clients), BT/BLE4.2	802.11abgn+ac	
Core System	600MHz Single Core ARM, 512MB RAM, 4GB eMMC	400MHz Single Core PPC, 64MB RAM, 128MB NAND	600MHz Single Core ARM, 512MB RAM, 4GB eMMC	1.3GHz Dual Core ARM, 1024MB RAM, 4GB eMMC	
LTE-WiFi Throughput	100 Mbps	40Mbps	90 Mbps	200Mbps	
LAN-WiFi Throughput	100 Mbps	40Mbps	90 Mbps	200Mbps	
LAN-LAN Throughput	n/a	70Mbps	100 Mbps	930Mbps	
Digital I/O	1/1 on Extension	2/2	1/1 + 1/1 on EXT 1	2/2 on Extension (**)	
Serial Port	1 on Extension	1	1 + 1 on EXT 1	1	
Extension Ports	1	-	1 + 1	2	
Extension Options	COM-IO, Dual-CAN, SubGHz(**), CanGI(**)	n/a	COM-IO, Dual-CAN, SubGHz(**), FXS, 2/2 DIO(**)	FXS, 2/2 DIO(**)	
Extended Data Storage	n/a	32/64GB eMMC		SD card + 32/64GB eMMC	
USB Port		USB2.0 Host			
Customer Applications	SDK, LXC Virt.	SDK		SDK, LXC Virt.	
Input Voltage	12/24VDC	12/24/48VDC	12/24VDC	12/24/48VDC	
Dimension w/h/d in mm	85/111 x 32 x 110	124 x 45 x 110	124 x 45 x 110	128 x 61 x 121	
Weight in gr	250	600	450	900	1'100
Mounting Options	Wall/Brackets	DIN Rail	DIN Rail (vertical / horizontal)	DIN Rail (vertical / horizontal)	
Temperature Range (Operational)	-40°C to +70°C	-25°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C, -40°C to +50°C with PoE
Compliance	CE/RED, UN ECE R10, UN ECE R118(**), FCC(**)	CE/RED			

\*planned, \*\* under development  
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