

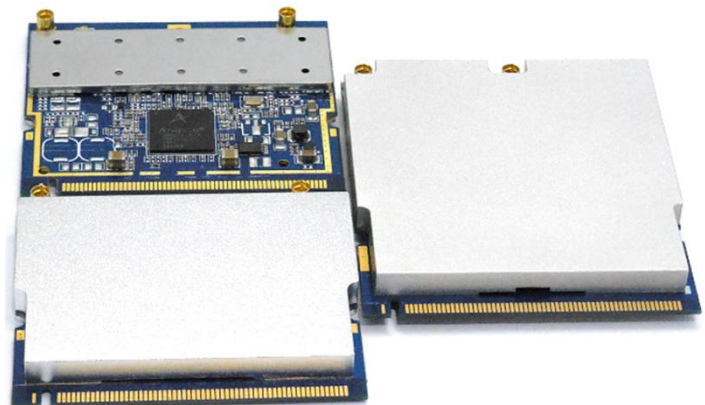


nM2-Series Product Brochure

Dual Stream MIMO, 2x2, 11 a/b/g/n, Mini PCI Radio Modules

Vizmonet offers wide range of **Carrier-Class-Customized** wireless communication modules tailored made to suit OEM requirements. Under this MIMO 802.11n portfolio, High-performance wireless communication radio modules based on Qualcomm Atheros base Band Chipset are available for OEM's choice.

These modules, built with design concepts focussed on customization requirements are engineered with fine precision to meet stringent performance metrics set by Vizmonet Quality Standards.



STANDARD FEATURES

- IEEE 802.11b/g/n standards compliant with Base band chip AR9223-AC1A
- IEEE 802.11a/n standards compliant with Base band chip AR9220-AC1A
- 5MHz/10MHz/20MHz/40MHz Channel Bandwidth
- 2xMMCX Antenna connector
- High TX Power of up to +29 dBm for lower data rates
- Mini PCI Type IIIA form factor

CUSTOM FEATURES

- Custom channel Plan & Jumper support optional two alternate Channel Plan
- Custom form-factor
- Custom heat sink, shield cover & metal bracket
- Custom MAC ID , PCI device Id & other OEM specific PCI data
- Support for Regulatory Certification Approvals in OEM's name

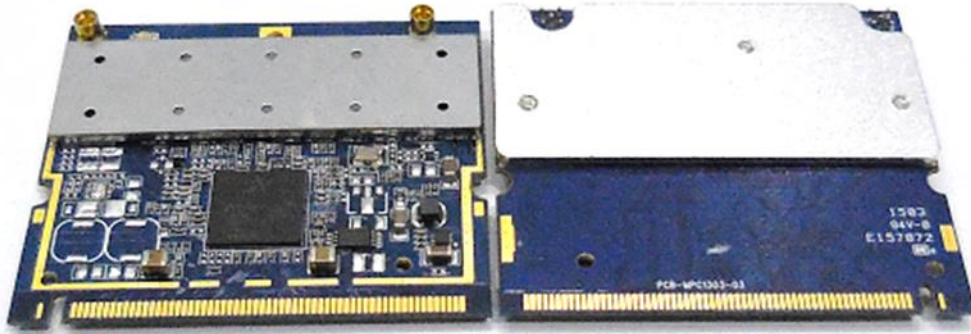
MODEL MATRIX

MODEL	FREQUENCY (MHz)	STANDARD	BAND	CHIPSET
nM2-300	300MHz to 400MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-400	400MHz to 500MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-420	420 MHz to 450 MHz	11 b/g/n	70 cm, HAM Band	AR9223-AC1A
nM2-500	500 MHz to 600 MHz	11 b/g/n	TVWS Band	AR9223-AC1A
nM2-600	600MHz to 700MHz	11 b/g/n	TVWS Band	AR9223-AC1A
nM2-700	700MHz to 800MHz	11 b/g/n	TVWS Band	AR9223-AC1A
nM2-800	800MHz to 900MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-900	900MHz to 1000 MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-902	902 MHz to 928 MHz	11 b/g/n	ISM Band	AR9223-AC1A
nM2-1000	1000 MHz to 1500 MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-2400	2400 MHz to 2483.5 MHz	11 b/g/n	ISM Band	AR9223-AC1A
nM2-2300	2300 MHz to 2500 MHz	11 b/g/n	License Band	AR9223-AC1A
nM2-4800	4800 MHz to 5000 MHz	11 a/n	Public Safety License Band	AR9220-AC1A
nM2-4940	4940 MHz to 4990 MHz	11 a/n	Public Safety Band	AR9220-AC1A
nM2-5150	5150 MHz to 5850 MHz	11 a/n	ISM Band	AR9220-AC1A
nM2-5850	5850 MHz to 5925 MHz	11 a/n	ITS Band	AR9220-AC1A
nM2-5925	5925 MHz to 6100 MHz	11 a/n	License Band	AR9220-AC1A



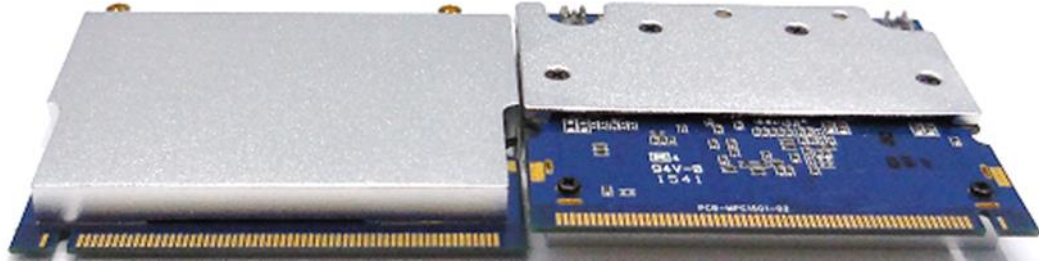
RADIO SPECIFICATION (300 MHz to 1500 MHz)

RADIO TX/RX PERFORMANCE, 20 MHz BW, 2 STREAMS						
	DATA RATE	MODULATION	TX POWER ± 1 dBm	TX CURRENT (A) AT 3.3V ± 0.1A	RX SENSITIVITY ± 2 dBm	RX CURRENT(A) AT 3.3V ± 0.1A
11 g	6 Mbps	BPSK	28	1.3	-93	0.15
	9 Mbps	BPSK	28	1.3	-93	0.15
	12 Mbps	QPSK	28	1.3	-92	0.15
	18 Mbps	QPSK	28	1.3	-91	0.15
	24 Mbps	16QAM	28	1.3	-87	0.15
	36 Mbps	16QAM	26	1.2	-83	0.15
	48 Mbps	64QAM	23	1.1	-78	0.15
	54 Mbps	64QAM	22	1.0	-75	0.15
11 b	1 Mbps	BPSK	29	1.4	-95	0.15
	2 Mbps	QPSK	29	1.4	-93	0.15
	5.5 Mbps	CCK	29	1.4	-91	0.15
	11 Mbps	CCK	29	1.4	-90	0.15
11 n HT20	MCS0/8	BPSK	28	1.3	-92	0.15
	MCS1/9	QPSK	28	1.3	-91	0.15
	MCS2/10	QPSK	28	1.3	-90	0.15
	MCS3/11	16QAM	28	1.3	-86	0.15
	MCS4/12	16QAM	26	1.2	-83	0.15
	MCS5/13	64QAM	23	1.1	-76	0.15
	MCS6/14	64QAM	21	0.9	-75	0.15
	MCS7/15	64QAM	19	0.9	-74	0.15



RADIO SPECIFICATION (2.3 GHz to 2.5 GHz)

RADIO TX/RX PERFORMANCE, 20 MHz CHANNEL BW, 2 STREAMS						
	DATA RATE	MODULATION	TX POWER ± 1 dBm	TX CURRENT (A) AT 3.3V ± 0.1A	RX SENSITIVITY ± 2 dBm	RX CURRENT(A) AT 3.3V ± 0.1A
11 g	6 Mbps	BPSK	29	1.2	-95	0.15
	9 Mbps	BPSK	29	1.2	-95	0.15
	12 Mbps	QPSK	29	1.2	-94	0.15
	18 Mbps	QPSK	29	1.2	-93	0.15
	24 Mbps	16QAM	29	1.2	-89	0.15
	36 Mbps	16QAM	27	1.1	-86	0.15
	48 Mbps	64QAM	25	0.8	-82	0.15
	54 Mbps	64QAM	24	0.7	-80	0.15
11 b	1 Mbps	BPSK	29	1.2	-97	0.15
	2 Mbps	QPSK	29	1.2	-94	0.15
	5.5 Mbps	CCK	29	1.2	-93	0.15
	11 Mbps	CCK	29	1.2	-92	0.15
11 n HT 20	MCS0/8	BPSK	29	1.3	-85	0.15
	MCS1/9	QPSK	29	1.3	-84	0.15
	MCS2/10	QPSK	29	1.3	-81	0.15
	MCS3/11	16QAM	29	1.3	-78	0.15
	MCS4/12	16QAM	27	1.2	-74	0.15
	MCS5/13	64QAM	24	1.1	-69	0.15
	MCS6/14	64QAM	22	0.9	-68	0.15
	MCS7/15	64QAM	21	0.9	-67	0.15
11 n HT40	MCS0/8	BPSK	27	1.0	-91	0.15
	MCS1/9	QPSK	27	1.0	-90	0.15
	MCS2/10	QPSK	27	1.0	-88	0.15
	MCS3/11	16QAM	27	1.0	-85	0.15
	MCS4/12	16QAM	26	0.9	-82	0.15
	MCS5/13	64QAM	25	0.8	-78	0.15
	MCS6/14	64QAM	23	0.7	-77	0.15
	MCS7/15	64QAM	22	0.6	-74	0.15

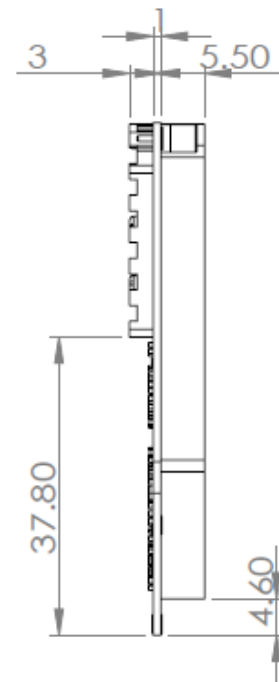
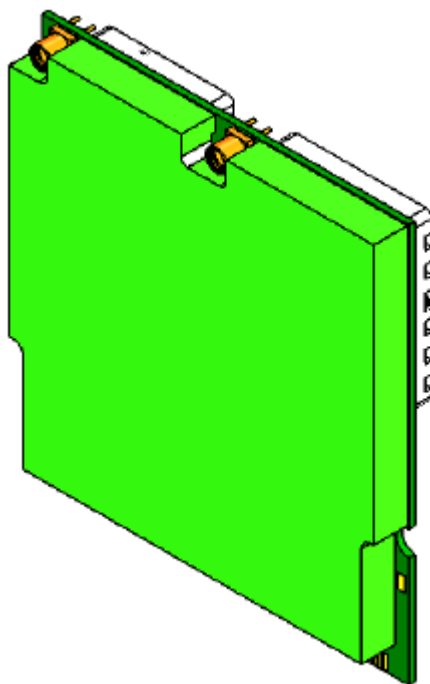
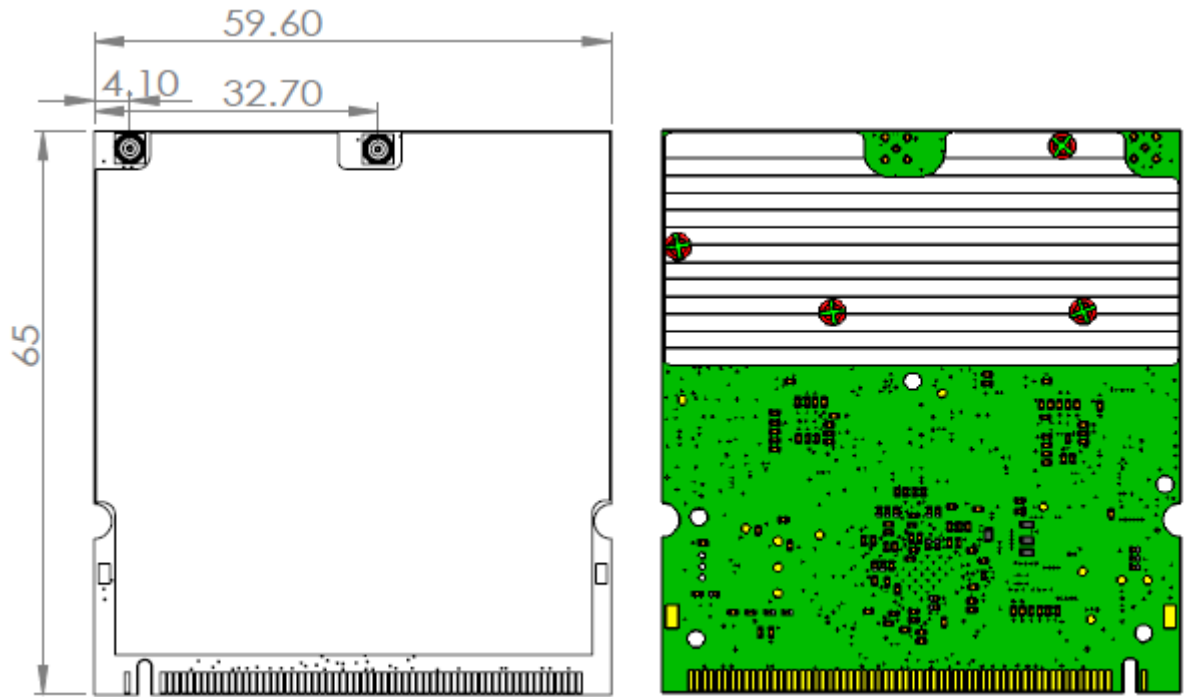


RADIO SPECIFICATION (5.1 GHz to 6.1 GHz)

RADIO TX/RX PERFORMANCE, FOR 2 CHAINS, 20 MHz BW, 2 STREAMS						
	DATA RATE	MODULATION	TX POWER ± 1 dBm	TX CURRENT (A) AT 3.3V ± 0.1A	RX SENSITIVITY ± 2 dBm	RX CURRENT(A) AT 3.3V ± 0.1A
11 a	6 Mbps	BPSK	29	1.2	-95	0.15
	9 Mbps	BPSK	29	1.2	-95	0.15
	12 Mbps	QPSK	29	1.2	-94	0.15
	18 Mbps	QPSK	29	1.2	-93	0.15
	24 Mbps	16QAM	29	1.2	-89	0.15
	36 Mbps	16QAM	26	1.0	-86	0.15
	48 Mbps	64QAM	24	0.8	-82	0.15
	54 Mbps	64QAM	23	0.7	-80	0.15
11 n HT 20	MCS0/8	BPSK	28	1.1	-94	0.15
	MCS1/9	QPSK	28	1.1	-93	0.15
	MCS2/10	QPSK	28	1.1	-91	0.15
	MCS3/11	16QAM	28	1.1	-88	0.15
	MCS4/12	16QAM	27	1.0	-85	0.15
	MCS5/13	64QAM	25	0.8	-81	0.15
	MCS6/14	64QAM	23	0.7	-79	0.15
	MCS7/15	64QAM	22	0.6	-77	0.15
11 n HT40	MCS0/8	BPSK	27	1.0	-91	0.15
	MCS1/9	QPSK	27	1.0	-90	0.15
	MCS2/10	QPSK	27	1.0	-88	0.15
	MCS3/11	16QAM	27	1.0	-85	0.15
	MCS4/12	16QAM	26	0.9	-82	0.15
	MCS5/13	64QAM	25	0.8	-78	0.15
	MCS6/14	64QAM	23	0.7	-77	0.15
	MCS7/15	64QAM	22	0.6	-74	0.15

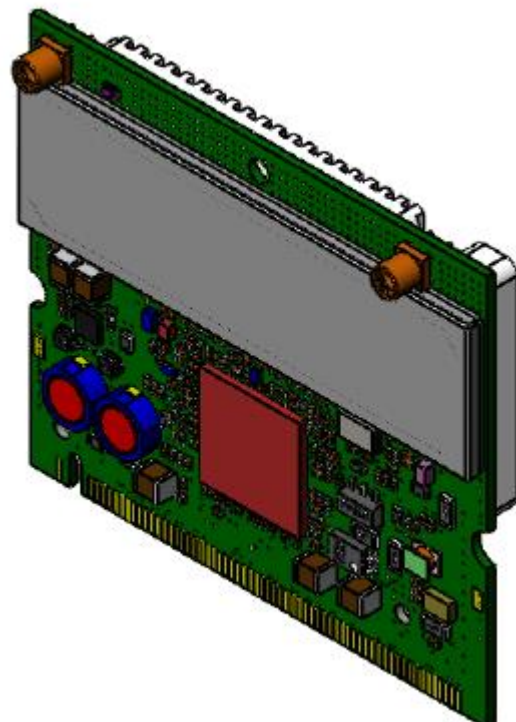
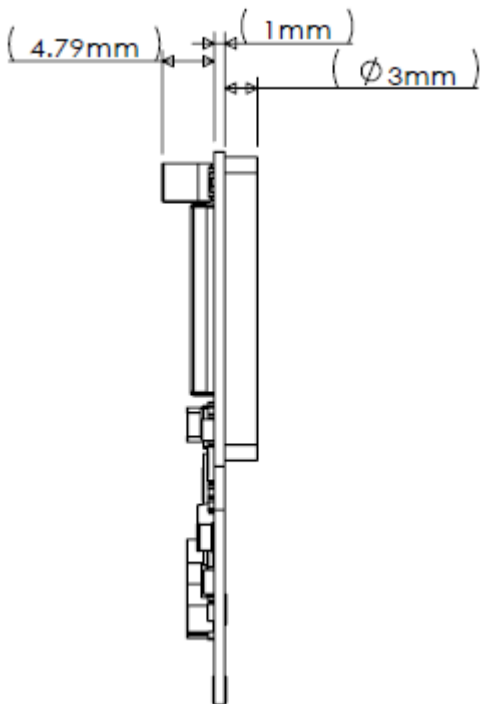
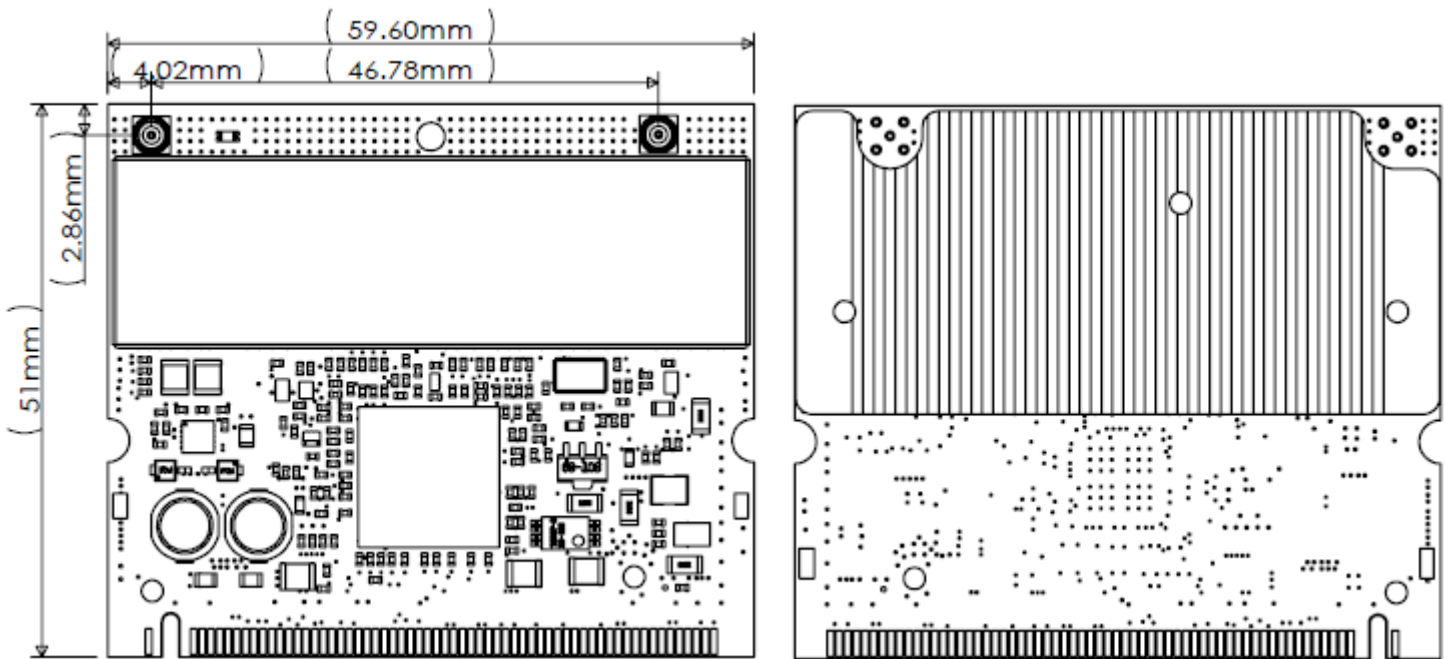
MECHANICAL DIMENSIONS

300 MHz to 1000 MHz



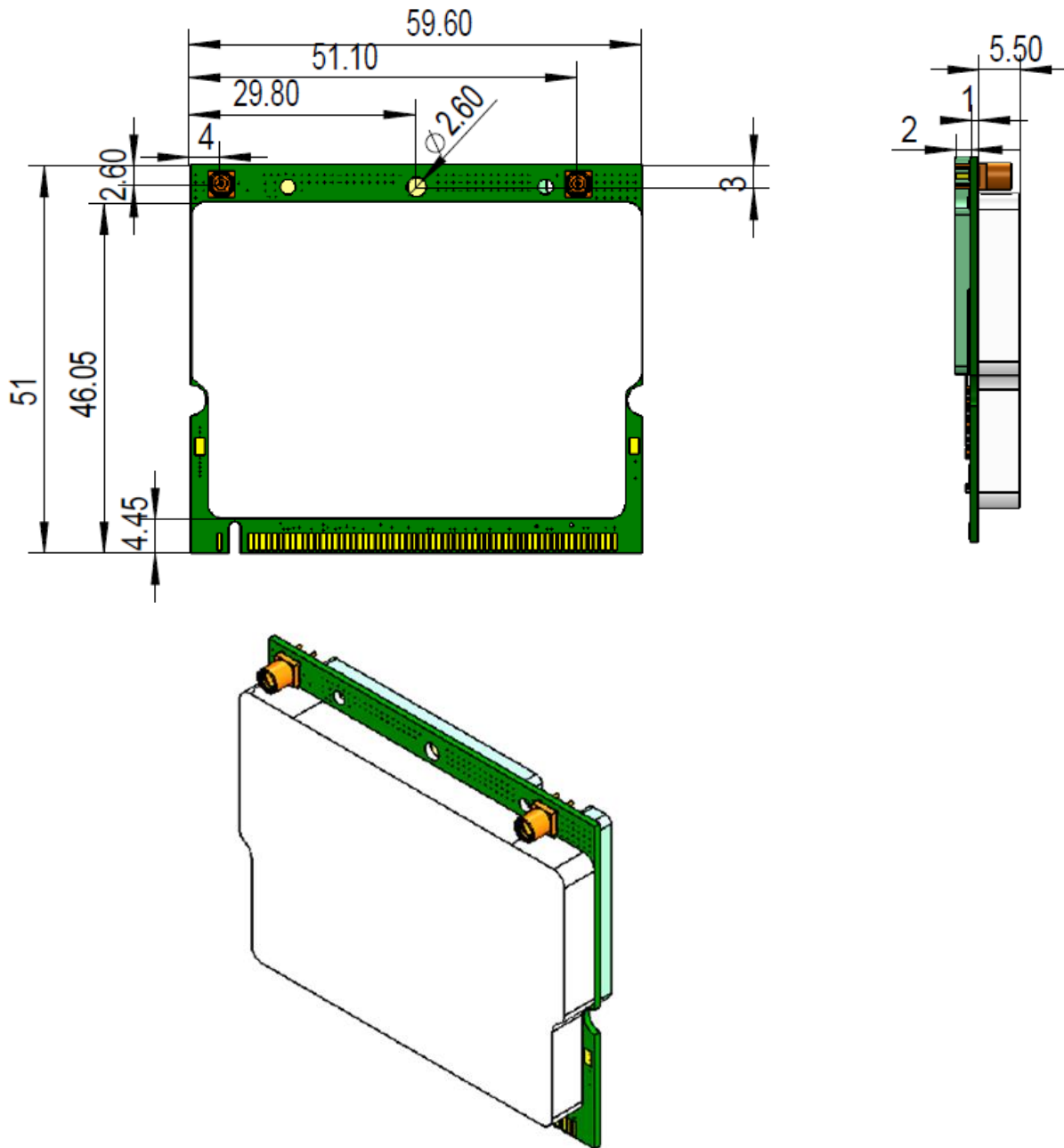
MECHANICAL DIMENSIONS

2.3 GHz to 2.5 GHz



MECHANICAL DIMENSIONS

4.8 GHz to 6.1 GHz



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