



November 2025

Technical Description for EMC

Device information

Manufacturer's name:	QIAGEN GmbH Qiagen Strasse 1 40724 Hilden Germany
Equipment Type/Environment:	QIAstat-Dx Rise
Trade Name/Model No:	9003163
Environment:	Professional healthcare facility environment
Essential performance:	Essential performance for QIAstat-Dx Rise comprises the following: <ul style="list-style-type: none">• Cartridge Transport (Gripper, Robotic Arm x/y/z, Distance sensors)• Barcode reading• Sample Recognition• Assay test• Temperature control

EMC report data

EMC emissions test levels

Emission test	Test level/compliance level	Environment
Radiated emissions CISPR 11	Class B, Group 1 emissions level	Suitable for use in Professional Healthcare Facility Environment.* Also suitable for use in residential environments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes†.
Conducted emissions CISPR 11	Class B, Group 1 emissions level	
Harmonic distortion IEC 61000-3-2	As per IEC 61000-3-2	
Voltage fluctuation and flicker IEC 61000-3-3	As per IEC 61000-3-3	

* Locations include hospitals, clinics, diagnostic laboratories, or scientific environments.

† Locations include diagnostic laboratories or clinics located in residential areas.

Table 4 & 5. IEC 60601-1-2:2014, AMD1:2020 Electromagnetic immunity requirements for ME equipment and ME systems

Phenomenon	Basic EMC standard or test method	Immunity test levels
		Professional healthcare facility environment
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air
Radiated RF EM fields	IEC 61000-4-3	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	See Table 9 below
Rated power frequency magnetic fields	IEC 61000-4-8	30 A/m 50 Hz or 60 Hz

		Test frequency	Modulation	Immunity test level (A/m)
Proximity magnetic fields	IEC 61000-4-39	30 kHz	CW	8
		134.2 kHz	Pulse modulation 2.1 kHz	65
		13.56 MHz	Pulse modulation 50 kHz	7.5
Electrical fast transients/bursts	IEC 61000-4-4	± 2 kV 100 kHz repetition frequency		
Surges Line-to-line	IEC 61000-4-5	± 0,5 kV, ± 1 kV		
Surges Line-to-ground	IEC 61000-4-5	± 0,5 kV, ± 1 kV, ± 2 kV		
Conducted disturbances induced by RF fields	IEC 61000-4-6	3 V 0,15 MHz – 80 MHz 6 V in ISM bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz		
Voltage dips	IEC 61000-4-11	0% UT; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0°		
Voltage interruptions	IEC 61000-4-11	0% UT; 250/300 cycle		

Table 9. Test specifications for enclosure port immunity to RF wireless communication equipment

Test frequency (MHz)	Band* (MHz)	Service*	Modulation	Immunity test level (V/m)
385	380-390	TETRA 400	Pulse Modulation† 18 Hz	27
450	430 -470	GMRS 460, FRS 460	FM‡ ± 5 kHz deviation 1 kHz sine	28
710 745 780	704-787	LTE Band 13, 17	Pulse Modulation† 217 Hz	9
810 870 930	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse † 18 Hz	28
1720 1845 1970	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE-Band 1, 3, 4, 25; UMTS	Pulse Modulation† 217 Hz	28
2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse Modulation† 217 Hz	28
5240 5500 5785	5100-5800	WLAN 802.11 a/n	Pulse Modulation† 217 Hz	9

If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME equipment or ME system may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

* For some services, only the uplink frequencies are included.

† The carrier shall be modulated using a 50% duty cycle square wave signal.

‡ As an alternative to FM modulation, the carrier may be pulse modulated using a 50% duty cycle square wave signal at 18 Hz. While it does not represent actual modulation, it would be worst case.

Conclusion

Essential performance was guaranteed with all immunity tests. There was no deviation from the basic or collateral standards listed in this document.

Trademarks: QIAGEN®, Sample to Insight®, QIAstat-Dx® (QIAGEN Group). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

HB-2997-D01-001 11/2025 © 2025 QIAGEN, all rights reserved.

Ordering www.qiagen.com/shop | Technical Support support.qiagen.com | Website www.qiagen.com