

Prüfbericht-Nr.: Test report no.:	IN26RGUW 001	Auftrags-Nr.: Order no.:	147163601 010	Seite 1 von 6 Page 1 of 6
Kunden-Referenz-Nr.: Client reference no.:	1039889	Auftragsdatum: Order date:	2026-02-05	
Auftraggeber: Client:	Bosch Global Software Technologies Private Limited MS/PAC, Ban601, Post Box No 3000 Hosur Road, Adugodi Bengaluru 560030 India			
Prüfgegenstand: Test item:	iTraMS Gen2E HF			
Bezeichnung / Typ-Nr.: Identification / Type no.:	CU-403-1011-01 CU-403-1011-02			
Auftrags-Inhalt: Order content:	Testing and issue of Test Report with Grant Certificate			
Prüfgrundlage: Test specification:	FCC Part1 1.1310, KDB 447498 D01 RSS 102 Issue 6			
Wareneingangsdatum: Date of sample receipt:	2026-03-17			
Prüfmuster-Nr.: Test sample no.:	A004227783-001, 003 A004227783-007, 009			
Prüfzeitraum: Testing period:	2026-03-18 - 2026-04-30			
Ort der Prüfung: Place of testing:	Wireless laboratory, Bangalore			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (India) Pvt.Ltd., 27/B, 2nd Cross, Electronic City Phase1 Bangalore -560 100, India FCC Test site registration number: 496599 ISED Test site registration number: 27711			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	genehmigt von: authorized by:			
Datum: Date: 2026-08-07		Ausstellungsdatum: Issue date: 2026-08-07		
Stellung / Position:	Darshan D Senior Engineer	Stellung / Position:	Yogesh V Assistant Manager	
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht - Nr.: Test Report No.:	IN26RGUW 001	Seite 2 von 6 Page 2 of 6
1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>	
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>	
3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>	
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>	

1 RF Exposure Evaluation

1.1 RF Exposure Compliance Requirement

The limit for Maximum Permissible Exposure (MPE) specified in FCC Part 1 Subpart I 1.1310 is followed. The gain of the antennas used in the product are extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

1.2 Test Reference Limits

According to FCC Part 1 Subpart I 1.1310 The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Table 1: Limits for Maximum Permissible Exposure (MPE) as per FCC

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1500 – 100000	--	--	1.0

F or f = Frequency in MHz

Table 2: Limits for Maximum Permissible Exposure (MPE) as per ICSED Canada

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m ²)
Limits for Occupational / controlled Exposures			
100-6000	$15.60 f^{0.25}$	$0.04138 f^{0.25}$	$0.6455 f^{0.5}$
Limits for General population / Uncontrolled Exposure			
300-6000	$3.142 f^{0.3417}$	$0.008335 f^{0.3417}$	$0.02619 f^{0.6834}$

F or f = Frequency in MHz

According to IC **RSS 102 Issue 6 clause 6.6**: Field reference level exposure exemption limits:

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834} \text{ W}$ (adjusted for tune-up tolerance), where f is in MHz.

Friss Formula

Friss Transmission Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where,

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation.

Test Results:

Antenna details:

Antenna Type	Cellular Bands	Uplink Frequency Range (MHz)	Downlink Frequency Range (MHz)	Antenna Gain (dBi)
Primary Antenna (External)	Band 2	1850.7 – 1909.3	1930.7 – 1989.3	5.45
	Band 4	1710.7 – 1754.3	2110.7 – 2154.3	5.00
	Band 5	824.7 – 848.3	869.7 – 893.3	1.80
	Band 7	2502.5 – 2567.5	2622.5 – 2687.5	4.14

Table 1: (Gen 2E) Internal Antenna Gain

Antenna Type	Cellular Bands	Uplink Frequency Range (MHz)	Downlink Frequency Range (MHz)	Antenna Gain (dBi)
Primary Antenna (External)	Band 2	1850.7 – 1909.3	1930.7 – 1989.3	3.63
	Band 4	1710.7 – 1754.3	2110.7 – 2154.3	3.15
	Band 5	824.7 – 848.3	869.7 – 893.3	2.34
	Band 7	2502.5 – 2567.5	2622.5 – 2687.5	2.85
	Band 12	699.7 – 715.3	729.7 – 745.3	1.99
	Band 13	779.5 – 784.5	748.5 – 753.5	1.99
	Band 17	706.5 – 713.5	736.5 – 743.5	1.99

Table 2: (MA284 4 in 1 Adhesive Mount) External Antenna Gain

Antenna Type	Channel Frequency (MHz)	Antenna Gain (dBi)
Wi-Fi FPC Antenna	2400	3.3
	2450	3.1
	2500	3.1
	5150	2.5
	5500	2.6
	5850	2.9

Table 3: Wi-Fi FPC Antenna Gain

Prüfbericht - Nr.:

Test Report No.:

IN26RGUW 001

Seite 5 von 6

Page 5 of 6

Test Results for FCC:

Radio Technology	FCC Clause	Frequency (MHz)	RF output power at antenna terminal (dBm)	RF output power at antenna terminal (mW)	Total RF including Tune-up (mW)	Antenna Gain in (dBi)	Antenna gain in Linear Scale	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Bands	Part 27	1732.5	23.19	208.449	262.422	5	3.162	0.165	1
		2535	22.25	167.880	211.349	4.14	2.594	0.109	1
		707.5	22.95	197.242	248.313	1.99	1.581	0.078	0.4717
		782	22.73	187.499	236.048	1.99	1.581	0.074	0.5213
		709	22.33	171.002	215.278	1.99	1.581	0.068	0.4727
	Part 22	829	22.83	191.867	241.546	2.34	1.714	0.082	0.5527
	Part 24	1960	22.65	184.077	231.739	5.45	3.508	0.162	1
WiFi 2.4GHz		2437	17.17	52.119	65.615	3.1	2.042	0.027	1
WiFi 5GHz UNII-2a		5270	11.63	14.555	18.323	2.5	1.778	0.006	1
GSM	850	848.8	24.24	265.461	334.195	2.34	1.714	0.114	0.5659

Test Results for ISSED:

Radio Technology	FCC Clause	Frequency (MHz)	RF output power at antenna terminal (dBm)	RF output power at antenna terminal (mW)	Total RF including Tune-up (mW)	Antenna Gain in (dBi)	Antenna gain in Linear Scale	Power Density (W/m ²)	Limit (W/m ²)
LTE Bands	Part 27	1732.5	23.19	208.449	262.422	5	3.162	1.651	4.280
		2535	22.25	167.880	211.349	4.14	2.594	1.091	5.552
		707.5	22.95	197.242	248.313	1.99	1.581	0.781	2.321
		782	22.73	187.499	236.048	1.99	1.581	0.742	2.485
		709	22.33	171.002	215.278	1.99	1.581	0.677	2.324
	Part 22	829	22.83	191.867	241.546	2.34	1.714	0.824	2.586
	Part 24	1960	22.65	184.077	231.739	5.45	3.508	1.617	4.657
WiFi 2.4GHz		2437	17.17	52.119	65.615	3.1	2.042	0.266	5.404
WiFi 5GHz UNII-2a		5270	11.63	14.555	18.323	2.5	1.778	0.065	9.154
GSM	850	848.8	24.34	271.644	341.979	2.34	1.714	1.166	2.628

*Note: The duty correction factor of 7.95 dB is subtracted from the measured power for GSM.

DCCF: 20*LOG(1/D)

DC 40% = 7.95dB

Prüfbericht - Nr.:

Test Report No.:

IN26RGUW 001

Seite 6 von 6

Page 6 of 6

***Note:**

1. Supplier has been declared tune up value as $\pm 1\text{dB}$ for LTE & proprietary protocol and same as applied in above table.

Exception calculation for Simultaneous Operation:

RF Protocol	Calculated Pd(W/m ²)	Total Pd(W/m ²)	Limit(W/m ²)
Wifi + LTE	0.266+1.651	1.917	2.321
Wifi + GSM	0.266 + 1.166	1.432	2.321

1.3 Conclusion

The Power density of the EUT is less than the defined limit as shown above. Hence, it's meeting the RF Exposure evaluation.

The max. output power also less than Field reference level exposure exemption limits (2.67W for 2400MHz).

*****End of test Reports*****