

FCC Compliance

Product Feature and Specification

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EUT Type	5G WWAN Module
Brand Name	Foxconn
Model Name	T99W696
FCC ID	2AQ68T99W696
Wireless Technology and Frequency Range	WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 2550 MHz, 3550 MHz ~ 3600 MHz LTE Band 43: 3600 MHz ~ 3700MHz, 3700 MHz ~ 3800 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3450MHz ~ 3550MHz, 3500 MHz ~ 3700MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450MHz ~ 3550MHz, 3500 MHz ~ 3700MHz, 3700 MHz ~ 3800 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM

FCC Maximum Antenna gain

Based on FCC 47 CFR §1.1307, the analysis concludes that this product when transmitting in standalone within a host device, is compliant with the FCC RF exposure requirements in mobile exposure condition, provided the conducted power and antenna gain do not exceed the limits for each given frequency band per wireless technology as follow table:

Device	Technology	Band	Maximum Conducted Power (dBm)	Standalone Maximum Antenna Gain (dBi)
T99W696	UMTS	WCDMA Band 2	24.5	8.5
		WCDMA Band 4	24.5	5.5
		WCDMA Band 5	24.5	9.9
	LTE	LTE Band 2	24.0	8.5
		LTE Band 4	24.0	5.5
		LTE Band 5	24.5	9.9
		LTE Band 7	24.0	9.0
		LTE Band 12	24.5	9.1
		LTE Band 13	24.5	9.6
		LTE Band 14	24.5	9.7
		LTE Band 17	24.5	9.1
		LTE Band 25	24.0	8.5
		LTE Band 26	24.5	9.9
		LTE Band 30	23.0	0.9
		LTE Band 38	24.0	9.0
		LTE Band 41_PC3	24.0	9.0
		LTE Band 41_PC2	27.0	6.0
		LTE Band 42_Part27	24.0	6.0
		LTE Band 42_Part96	22.0	1.0
		LTE Band 43_Part27	24.0	6.0
		LTE Band 43_Part96	22.0	1.0
		LTE Band 48	22.0	1.0
		LTE Band 66	24.0	5.5
		LTE Band 71	24.5	8.9
	NR	NR Band 2	24.0	8.5
		NR Band 5	24.5	9.9
		NR Band 7	24.0	9.0
		NR Band 12	24.5	9.1
		NR Band 13	24.5	9.6
		NR Band 14	24.5	9.7
		NR Band 25	24.0	8.5
		NR Band 26	24.5	9.9
		NR Band 30	23.0	0.9
		NR Band 38	24.0	9.0
		NR Band 41_PC3	24.0	9.0
		NR Band 41_PC2	27.0	6.0
		NR Band 41_PC1.5	29.0	4.0
		NR Band 48	22.0	1.0
		NR Band 66	24.0	5.5
		NR Band 71	24.5	8.9
		NR Band 77_PC3_Part27	24.0	6.0
		NR Band 77_PC2_Part27	27.0	3.0
		NR Band 77_PC1.5_Part27	29.0	1.0
		NR Band 77_PC3_Part96	22.0	1.0
		NR Band 78_PC3_Part27	24.0	6.0
		NR Band 78_PC2_Part27	27.0	3.0
		NR Band 78_PC1.5_Part27	29.0	1.0
		NR Band 78_PC3_Part96	22.0	1.0

**Federal Communication Commission Interference Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

The product complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This module is intended for OEM integrator only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:**2.2 List of applicable FCC rules**

This module has been tested for compliance to FCC Part 22, 24, 27, 90, 96.



2.3 Summarize the specific operational use conditions

The module is tested for standalone module RF exposure use condition. Any other usage condition such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

2.4 Limited module procedures

Not applicable.

2.5 Trace antenna designs

Not applicable

2.6 RF exposure considerations

The product complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

Antennas with equal or lower gain may also be used with this module. The antenna must be installed such that 20cm can be maintained between the antenna and users.

2.8 Label and compliance information

The final end product must be labeled in a visible area with the "Contains FCC ID: 2AQ68T99W696."

The grantee FCC ID can be used only when all FCC compliance requirements are met."

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

Host manufacturer shall make sure the system antenna and EIRP meet FCC regulation.

Host manufacturer shall validate on system RSE to make sure the radiated emission complies with FCC.

If there is WLAN on system, host manufacturer shall measure the WWAN+WLAN co-location RSE.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.



2.11 Note EMI Considerations

A host manufacture is recommended to use D04 Module Integration Guide recommending as "best practice" RF design engineering testing and evaluation in case non-linear interactions generate additional non-compliant limits due to module placement to host components or properties for standalone mode, reference the guidance in D04 Module Integration Guide and for simultaneous mode7; see D02 Module Q&A Question 12, which permits the host manufacturer to confirm compliance.

2.12 How to make changes

Since, only Grantees are permitted to make permissive changes, if the module will be used differently than granted, please contact Nancy Lin, the contact of Grantee, for permissive change inquiry.

IMPORTANT NOTE: In the event that this conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating g the end product (including the transmitter) and obtaining a separate FCC authorization.

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove the RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

OEM/Host manufacturer responsibilities

OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi-radio and combined equipment.