



Intel[®] Video Link Module Tx 5.8 GHz Model: VLMTX58G

Manual (USA, Canada)

Revision 1.0

Revision History

Revision	Description	Date
1.0	VLMTX58G – Module Change in ID and Multiple Listing for USA and Canada	2017-03-17

Overview

The VLMTX58G is the image transmitting device of a wireless video link system consisting of a VLMTX58G transmitter and a VLMTX58G receiver/transceiver.

Instruction

Do only use

- with specified antennas
- within specified supply voltage range
- interfacing via provided HDMI, USB port, THC connector.



Specification

Module output (frequencies)	5.15 GHz – 5.25 GHz 5.25 GHz – 5.35 GHz (DFS) 5.470 GHz – 5.725 GHz (DFS) 5.725 GHz – 5.85 GHz
DFS Operation	Client (without radar detection)
Modulation	OFDM 16QAM (similar to 802.11a/n) on a proprietary protocol
Bandwidth	10 MHz, 20 MHz 40 MHz
Data Rates	10 MHz mode: 18.11 Mbps 20 MHz mode: 36.23 Mbps 40 MHz mode: 72.46 Mbps
Supply Input range	5 V _{DC} V ± 10% / 1A
Antenna connection	RP-SMA male Connector type: 50 Ohm nominal
Permissive antenna type/gain	Manufacturer: STEREN Model: WIFI Internal Antenna 3070-09-350 P/N: 3070-09-350 Peak Gain: 2.0 dBi
Antenna configuration	uncorrelated MIMO with 2 antennas multiplexed to 2x transmitting RF ports and 1 x receiving RF antenna port
Module Input	HDMI

Transmitter Output Power

Band	USA output power	Canada output power
Band 1 5.15 GHz – 5.25 GHz	24 dBm (conducted)	23 dBm (EIRP)
Band 2 5.25 GHz - 5.35 GHz	24 dBm (conducted)	23 dBm (EIRP)
Band 3 5.470 GHz - 5.725 GHz	24 dBm (conducted)	24 dBm (conducted)
Band 4 5.725 GHz – 5.85 GHz	24 dBm (conducted)	24 dBm (conducted)

Connection

Figure 1 VLMTX58G Top View

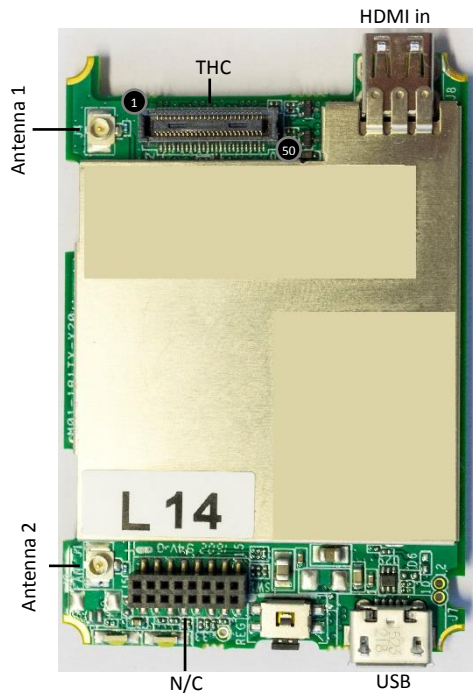
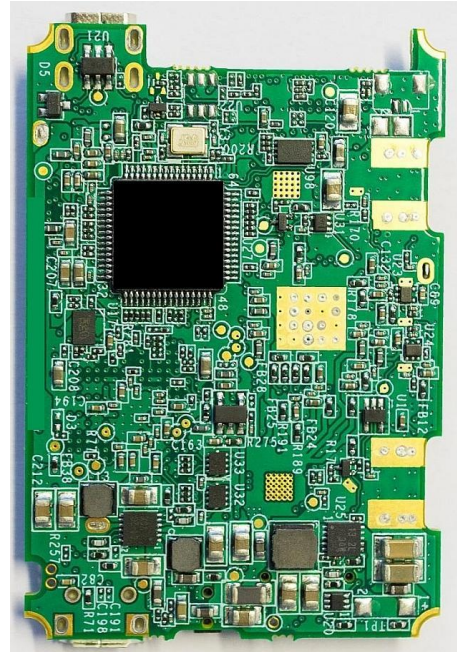


Figure 2 VLMTX58G Bottom View



Pin	Signal	Designation	Pin	Signal	Designation
2	VCC_5V	+5V	1	VCC_5V	+5V
4	VCC_5V	+5V	3	VCC_5V	+5V
6	VCC_5V	+5V	5	VCC_5V	+5V
8	GND8	GND	7	GND5	GND
10		NC	9	GND4	GND
12	LED1	+3.3V (Video Indication)	11	Spare2	+3.3V PC5. Pull down using 4.7KOhm
14	LED2	+3.3V (Network Indication)	13	Spare1	+3.3V PC2. Pull down using 4.7KOhm
16	Link/ Boot Mode GPIO	Active low (start registration in low). Keep high or NC when not in use	15	Reset	Active Low
18		NC	17		NC
20		NC	19		NC
22		NC	21		NC
24		NC	23	Reserved	3.3V Pull down using 4.7KOhm
26		NC	25	Reserved	NC
28		NC	27	Reserved	3.3V Pull down using 4.7KOhm
30	GND7	GND	29	GND3	GND
32	Reserved	Pull Down using 4.7KOhm	31	GND2	GND
34		NC	33	Reserved	NC
36		NC	35	Reserved	NC
38	Reserved	NC	37	UART4_RX	+3.3V MAVLink
40	Reserved	NC	39	UART4_TX	+3.3V MAVLink
42	Reserved	NC	41	Reserved	Keep NC
44	Reserved	NC	43	Reserved	Keep NC
46	Reserved	NC	45	Reserved	Keep NC
48	Reserved	NC	47	Reserved	Keep NC
50	GND6	GND	49	GND1	GND

Table 1: Transmitter Host Connector



FCC and ISED Statement

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).

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.

Cet appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'autorisation d'exploitation est soumise aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de d'interférences radioélectriques, et
- (2) l'appareil doit accepter toute interference radioélectrique subi, même si le brouillage est susceptible d'en compromettre le bon fonctionnement.

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 in-stalled 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 or more 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.

ICES-003 Statement (Canada)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Canadian Department of Communications.

i. the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

ii. high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme relative aux interférences causées par du matériel: "Appareils Numériques", NMB-003 édictée par le Ministre Canadien des Communications.

i. Le dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques d'interférence préjudiciable aux systèmes de téléphonie satellitaire utilisant les mêmes canaux;

ii. De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer des interférences et/ou des dommages aux dispositifs LAN-EL.



<p>iii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;</p> <p>iv. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725- 5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point- to-point and non-point-to-point operation as appropriate</p>	<p>iii. Pour les dispositifs dotés d'antenne (s) amovible (s), le gain d'antenne maximal autorisé pour les dispositifs dans les bandes 5250-5350 MHz et 5470-5725 MHz doit être tel que l'équipement soit toujours conforme aux normes e.i.r.p. limite;</p> <p>iv. Pour les dispositifs dotés d'antenne (s) amovible (s), le gain d'antenne maximal autorisé pour les dispositifs de la bande 5725- 5850 MHz doit être tel que l'équipement soit toujours conforme aux normes e.i.r.p. Limites spécifiées pour les opérations point à point et non point-à-point selon le cas</p>
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Important Note

Changes or modifications made to this equipment not expressly approved by Intel Corporation may void the FCC and ISED authorization to operate this equipment.

The product is provided with an approved antenna. Use only supplied or approved antenna by Intel Corporation. Any changes or modifications to the Antenna may void the FCC and ISED regulatory approvals obtained for the product.

Les modifications ou modifications apportées à cet équipement qui ne sont pas expressément approuvées par Intel Corporation peuvent annuler l'autorisation de la FCC et de l'ISED pour utiliser cet équipement.

Le produit est fourni avec une antenne approuvée. Utilisez uniquement une antenne fournie ou approuvée par Intel Corporation. Toute modification ou modification de l'antenne peut annuler les certifications réglementaires FCC et ISED obtenues pour le produit.

End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Operations in the 5150 - 5250 MHz band are restricted to indoor usage only. This device is not allowed to operate in the 5600-5650 MHz band as required by Canada regulation (ISED).

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons. RF exposure compliance must be ensured by integrator.

Contact

Intel Corporation
2200 Mission College Boulevard
Santa Clara, CA 95054