

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

Manual (USA)

Revision 3.0

Revision History

Revision	Description	Date
3.0	VLMRX58G – C2PC, Walsin, Micro-UFL, USA	2017-04-01

Overview

The VLMTX58G is the image transmitting device of a wireless video link system consisting of a VLMTX58G transmitter and a VLMRX58G 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	5.15 GHz – 5.25 GHz				
(frequencies)	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	40 MHz				
Data Rates	40 MHz mode: 72.46 Mbps				
Supply Input range	5 V _{DC} V ± 10% / 1A				
Antenna connection	connection µUFL				
	Connector type: 50 Ohm nominal				
Permissive antenna	Manufacturer: Walsin Technology Corporation				
type/gain	P/N: RFPCA201018IM5B301				
	Peak Gain: 5.47 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 (conducted)		
Band 1	5190MHz (CH38): 14.60 dBm		
5.15 GHz – 5.25 GHz	5230MHz (CH46): 13.33 dBm		
Band 2	5270MHz (CH54): 12.31 dBm		
5.25 GHz - 5.35 GHz	5310MHz (CH62): 12.07 dBm		
Band 3	5510MHz (CH 102): 12.68 dBm		
5.470 GHz - 5.725 GHz	5550MHz (CH 110): 12.26 dBm		
	5590MHz (CH118): 11.38 dBm		
	5670MHz (CH134): 12.27 dBm		
Band 4	5755MHz (CH 151): 12.68dBm		
5.725 GHz – 5.85 GHz	5795MHz (CH159): 13.07dBm		





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 Statement

This device complies with Part 15 of the FCC.

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 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.

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.

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

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

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