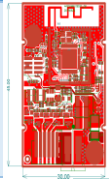


Hue Connect

Specification item	Value	Unit	Condition
			The Hue Connect is a motherboard that accommodates the Hue Engine. Its application is intended to be used for color tunable luminaires. In combination with the a 24V DC power supply and defined L1.5 LED kit, color consistency can between luminaires or light points within a luminaire can be guaranteed.
<i>Description</i>			
Logistical data			
I2NC	929002469604; 929002469605		
Minimum Order Quantity	1024	PCE	
Features & Functions			
Electrical input data			
Input power	70W		
Current of single channel	2.9A	Ampere	
Electrical output data	67W	Watt	
Voltage	24V	Volt +/-1V	
Average power consumption			
Standby power	<120mW	Watt	
Wireless specifications			
Wireless RF mode frequency band	2400 - 2483.5 MHz	MHz	
Wireless communications protocol	IEEE 802.15.4	ZigBee protocol	
Operating channel	Bluetooth LE	Bluetooth LE	
Range	11 - 26	channels	
Frequency tolerances (Typical)	12	meter	indoor
Output power (Typical)	+/-40	ppm	Continuous single tone
EVM (Typical)	9	dBm	Measured at antenna feedpoint
Receiver Sensitivity (Typical)	18	%rms	
TRP	-102	dBm	conducted
TRP	6	dBm	
LED board requirements			
Hue White Color Ambience	Unified Gamut		covered by L1.5 specifications
	Tunable white CCT range: 2000-6500K		
			covered by L1.5 specifications
Hue White Ambience	Tunable white CCT range: 2000-6500K		
			covered by L1.5 specifications
Hue White	2700K / 3000K / 4000K		
			covered by L1.5 specifications
Wiring & Connections			
J1 connector			Output to Sensor or 2nd light source
As interrupt for I2C, for button control	1	GPIO2	
Mapped to ENABLE	2	GPIO3	
I2C	3	Mix out2	

3.3V DC, supply for functions connected to I/O ir	4	VCC	
I2C	5	Mix out1	
Electrical Ground	6	GND	
As interrupt for I2C, for button control	7	GPIO1	
24V DC, 1.5A max via this pin	8	VBUS	
J2 connector			connector to L2 LED board
VBUS	1		
Pin connects 2200K (HWCA) to GND via MOSFET	2		
Pin connects to Red (HWCA), 2200K (HWA), 2700K (F	3		
Pin connects Green (HWCA and HWA) or Lime (HWA) t	4		
Pin connects Blue (HWCA) or 6500K (HWA) to GND vi	5		
Pin connects 6500K (HWCA) to GND via MOSFET	6		
Power in			Power in
V+	1		DC 24V
V-	2		GND
J4 connector			Pragram connector (internal use)
<i>Operational temperatures and humidity</i>			
Ambient temperature	-20 - 50° C		Celcius
Tcase-max	95° C		Celcius
Maximum housing temperature			
Relative humidity			
<i>Enviroment</i>			
			Damp
<i>Storage temperature and humidity</i>			
Ambient temperature			
Relative humidity			
<i>Lifetime</i>			
lifetime	25,000 hrs		Tamb<50° C
<i>Surge capability</i>			
ESD rating	+/-4	KV	Contact
	+/-8	KV	Air
	+/-2	KV	Handling Contact
	+/-4	KV	Handling Air
<i>Certificates and standards</i>			
Approval marks	CE, FCC, ETSI, ROHS & REACH, Zigbee, BLE		
Compliances and approvals			

FCC

FCC Labelling Requirements

When integrating HUE Connect into a product it must be ensured that the FCC labelling requirements are met. This includes a clearly visible label on the outside of the finished product specifying the FCC identifier (FCC ID:2AGBW9290024696X). This exterior label can use wording such as "Contains Transmitter Module FCC ID: 2AGBW9290024696X" although any similar wording that expresses the same meaning may be used.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The advance interface module complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The module and associated antenna must be installed to provide a separation distance of at least 20cm from all persons and must not transmit simultaneously with any other antenna or transmitter. **and it needed for the host product manufacturer to provide to end users in their end-product manuals. If RF exposure statements and use conditions are not provided, then the host product manufacturer is required to take responsibility of the module through a change in FCC ID (new application).**

FCC Approvals

FCC 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.

FCC notice:

This device is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification and the final host product still requires Part 15 Subpart B compliance testing with the modular.

This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device 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 device and receiver

- Connect the device into an outlet on a circuit different from that to which the receiver is connected

- Consult the dealer or an experienced radio/television technician for help .

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC (ISED Canada) Approvals

This device complies with ISED Canadalicense-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under ISED Canadaregulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication

This module complies with ISED Canada RF radiation exposure limits set forth for general population. To maintain compliance, this module must not be co-located or operating in conjunction with any other antenna or transmitter. The module and associated antenna must be installed to provide a separation distance of at least 20cm from all persons and must not transmit simultaneously with any other antenna or transmitter.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi) and required impedance for each.

Class B Notice for Canada This Class B digital apparatus complies with Canadian ICES-003

The labelling requirements for ISED Canada are similar to those of the FCC. Again a clearly visible label must be placed on the outside of the finished product stating something like "Contains Transmitter Module, IC: 20812-24696", although any similar wording that expresses the same meaning may be used.

IC

Le présent appareil est conforme aux CNR d' Industrie Canada applicables aux appareils radio exempts de licence. L' exploitation est autorisée aux deux conditions suivantes: (1) l' appareil ne doit pas produire de brouillage, et (2) l' utilisateur de l' appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d' en compromettre le fonctionnement.

En vertu de la réglementation d' Industrie Canada, cet émetteur radio risquera uniquement à l' aide d' une antenne de type et de gain maximum (ou moins) pour l' émetteur a approuvé par Industrie Canada. Pour réduire les interférences radio potentielles à d' autres utilisateurs, le type d' antenne et son gain doivent être choisis que la puissance isotrope rayonnée équivalente (p.i.r.e.) n' est pas plus que celle autorisée pour une communication réussie

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu' aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

Ce module est conforme à la FCC et Industrie Canada RF limites d' exposition aux rayonnements définies pour l' ensemble de la population. Pour maintenir la conformité, ce module ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou émetteur

À la suite de l' avis ci-dessus, le fabricant doit fournir une liste de tous les types d' antenne approuvés pour une utilisation avec l' émetteur, indiquant au maximum gain d' antenne (en dBi) et impédance requise pour chacun.

Les exigences d' étiquetage pour Industrie Canada sont semblables à celles de la FCC. Encore une fois un clairement visiblement étiquette doit être placée à l' extérieur du produit fini indiquant quelque chose comme "Module émetteur de Contains, IC ID: 20812-24696X", bien que tout même libellé qui exprime que le même sens peuvent être utilisé.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

CE

European Certification (ETSI)

The module have been certified to the following standards:

- Radio: EN 300 328
- EMC: EN 301 489-1, EN 301 489-17
- EMF: EN 62479
- Safety: EN 61347-1, EN 61347-2-11

If the module is incorporated into an OEM product, the OEM product manufacturer must ensure compliance of the final product to the European Harmonized EMC, and low voltage/safety standards

Inrush current

Earth leakage current