

User Manual

PRODUCT NAME : RF Module

MODEL NAME : KSS104M

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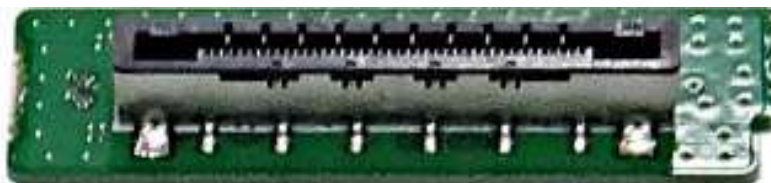
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1. Features

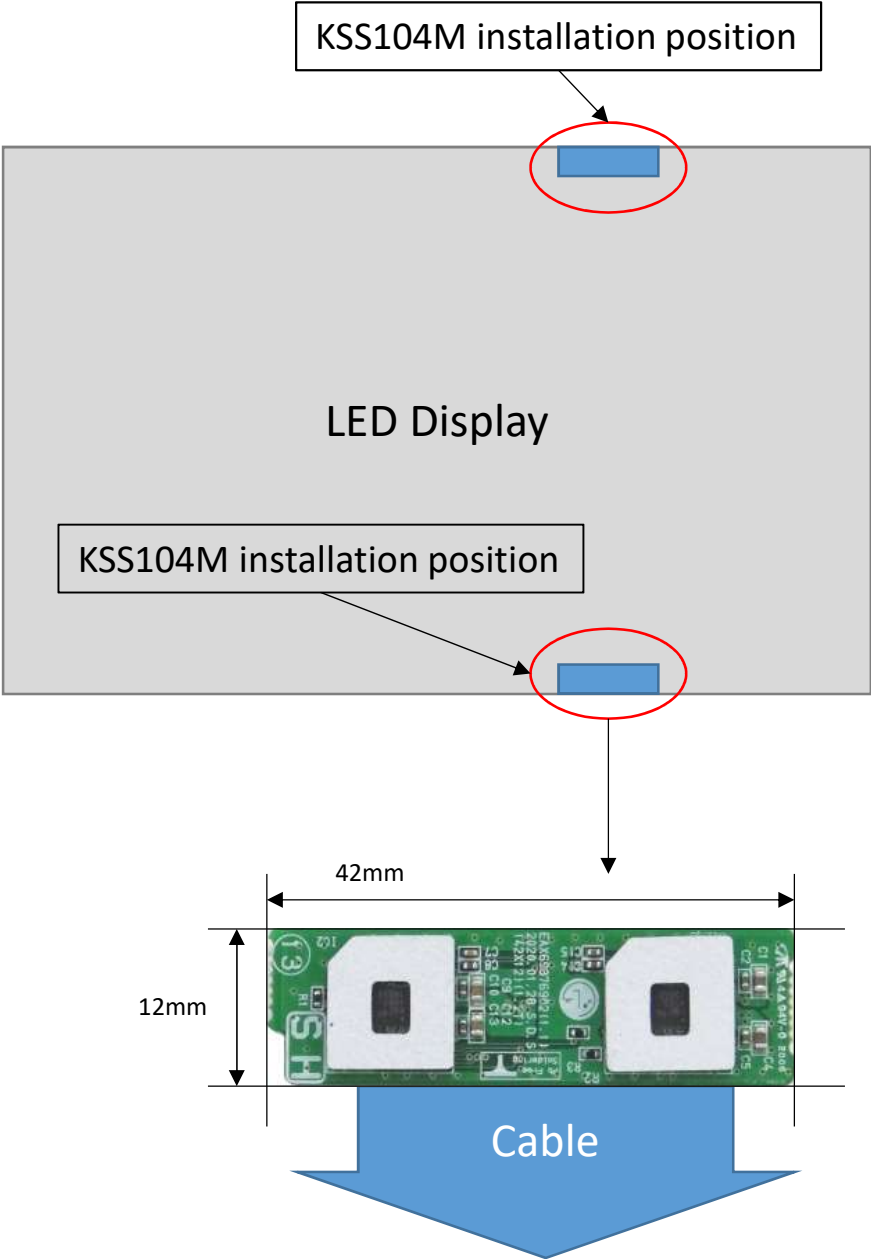
The Keyssa Glass KSS104M Product family provides Generic High Speed solid- state convector solutions. Each Glass KSS104M contains one Keyssa transceiver (SCVR) that can be configured to be a transmitter (Tx) or a receiver (Rx), allowing for unidirectional communication capability. When placed in proximity paired Glass KSS105Ms can establish an Extremely High Frequency (EHF) Communication link. For applications that use multiple Glass KSS104Ms on the same board, the KSS104Ms must be separated by a minimum of 15 mm center to center. The High Speed data must be DC-balanced 8b/10b coded to allow for clock recovery within the KSS105Ms and AC coupling of the high speed I/Os

2. Picture of Product

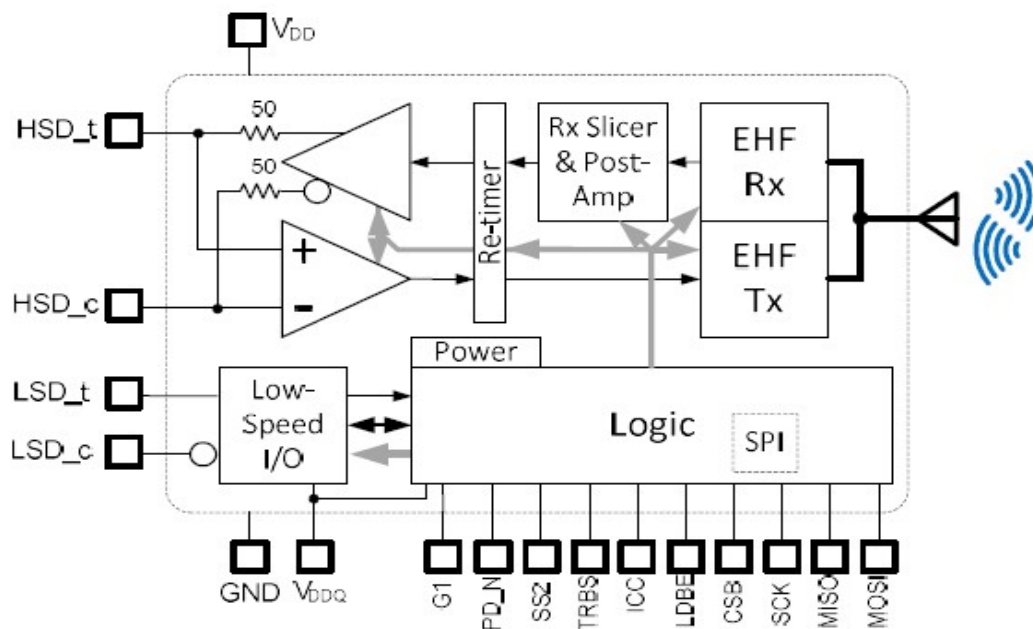


3. Installation and function

Install the module(s) like below at the upper and(or) lower of the LED display for transmitting and receiving data such as videos, pictures and operational log.



4. Block Diagram



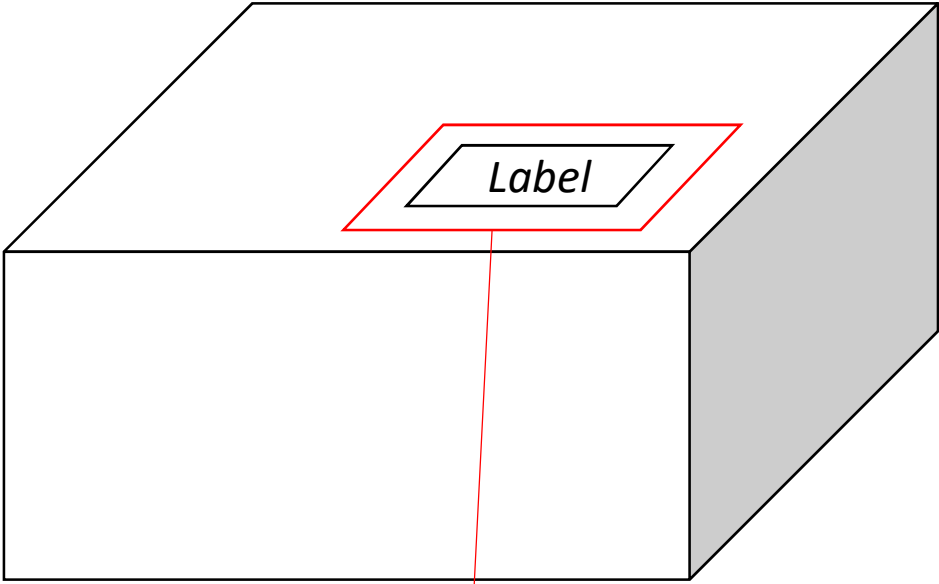
5. Operating Conditions

Parameter	Min	Typ	Max	Unit
Operating Temperature	0	-	40	°C
Operating Humidity	10	-	80	%
Storage Temperature	-20	-	60	°C
Storage Humidity	5	-	85	%
Supply Voltage	1.14	1.2	1.3	Vdc

6. RF specifications

ASK (Amplitude Shift Keying)	
Frequency Range	Output power (Max. dBm e.i.r.p)
57 GHz to 64 GHz	9
FCC ID: BEJKSS104M IC: 2703H-KSS104M	

7. Package guidance



LG Electronics Inc.
Model Name: KSS104M
FCC ID: BEJKSS104M
IC: 2703H-KSS104M

8. Compliance statements

1) FCC Statements

FCC Part 15.19 Statements:

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 Part 15.21 statement

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

Regulatory notice to host manufacturer according to KDB 996369 D03

OEM Manual v01 List of applicable FCC rules

This module has been granted modular approval as below listed FCC rule parts.

- FCC Rule parts 15C(15.255)

Summarize the specific operational use conditions

- The OEM integrator should use equivalent antennas which is the same type and equal or less gain than an antenna listed below in this instruction manual.

RF exposure considerations

The module has been certified for integration into products only by OEM integrators under the following condition:

- The antenna(s) must be installed such that a minimum separation distance of at least **20** cm is maintained between the radiator (antenna) and all persons at all times.
- The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter except the simultaneous transmission condition described in operational description and in accordance with FCC multi-transmitter product procedures.
- Mobile use

As long as the three conditions above are met, further transmitter testing will not be required. OEM integrators should provide the minimum separation distance to end users in their end-product manuals.

8. Compliance statements

1) FCC Statements

Antennas list

This module is certified with the following integrated antenna.

- Type: Differential patch antenna (Peak gain (dBi): 5.3 dBi)

Any new antenna type, higher gain than listed antenna should be met the requirements of FCC rule 15.203 and 2.1043 as permissive change procedure.

Label and compliance information

End Product Labeling

The module is not be labeled with its own FCC ID and IC Certification Number since impractical to be labeled on it. So, final end product which the module is installed must be labeled in a visible area with the following:

“Contains FCC ID: BEJKSS104M

“Contains IC: 2703H-KSS104M

Information on test modes and additional testing requirements

- OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, additional transmitter in the host, etc.).

Additional testing, Part 15 Subpart B disclaimer

-The final host product also requires Part 15 subpart B compliance testing with the modular transmitter installed to be properly authorized for operation as a Part 15 digital device.

Specific Host Device Platform

-This 60 GHz transmitter module was tested while equipped into the LG`s LED Screen. So, this transmitter must be installed into only series model of this LG`s LED Screens with the identical area of concen for this module installation. Otherwise, C2PC is required according to FCC Rule 2.1043 before installing into any other host device.

Test requirements about not Shielding

Since this transmitter module is not sheilded, the module manufacturer should perform the test that the module is compliant in the host device.

8. Compliance statements

2) ISED Statements

RSS-GEN, Sec. 7.1.3—(licence-exempt radio apparatus)

This device complies with Industry Canada licence-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.

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.

RF Exposure

The antenna (or antennas) must be installed so as to maintain at all times a distance minimum of at least **20 cm** between the radiation source (antenna) and any individual. This device may not be installed or used in conjunction with any other antenna or transmitter.

l'exposition aux RF

L'antenne (ou les antennes) doit être installée de façon à maintenir à tout instant une distance minimum de au moins **20 cm** entre la source de radiation (l'antenne) et toute personne physique.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment. Attention:

Les changements ou modifications de cet appareil non expressément approuvé par le fabricant peuvent annuler votre droit à utiliser cet équipement.

Étiquetage du produit final (IC)

Le module n'est pas étiqueté avec son propre ID FCC et numéro de certification IC depuis peu pratique d'être étiqueté sur elle. Ainsi, le produit final que le module est installé doit être étiqueté dans une zone visible avec les éléments suivants : :

« Contient module émetteur IC : 2703H-KSS104M