

Define Design Deploy Corp. dba D3 150 Lucius Gordon Drive West Henrietta, NY 14586 +1 585-429-1550

Date 27 November 2024

Federal Communications Commission Equipment Authorization Branch 7435 Oakland Mills Road Columbia, MD 21046

Limited Modular Approval Request

FCC ID: 2ASVZ-02

The following attestation addresses the requirements to support modular approval:

Modular approval requirement	Yes (provide brief statement)	No *
(a) The radio elements must have the radio frequency circuitry shielded. Physical components and tuning capacitor(s) may be located external to the shield, but must be on the module assembly		The RF elements are shielded within the package of the System on Chip. The antennas are integral to this package so the package cannot be shielded. Within the device packaging, there is effectively a shield as shown in the description below.
(b) The module must have buffered modulation/data inputs to ensure that the device will comply with Part 15 requirements with any type of input signal	Complies. There is no support for external modulation. All modulation is performed within the RFIC.	
(c) The module must contain power supply regulation on the module	Complies. The module is supplied with unregulated 4-6 VDC, and contains regulators to step down to 3.3 V, 1.8 V, and 1.2 V.	
(d) The module must contain a permanently attached antenna, or contain a unique antenna connector, and be marketed and operated only with specific antenna(s), per Sections 15.203, 15.204(b), 15.204(c), 15.212(a), 2.929(b)	Complies. There is no support for an external antenna. The antenna is etched on the PCB and has a fixed gain of 4 dBi for each of the 3 transmitters.	
(e) The module must demonstrate compliance in a stand-alone configuration		The module was tested within a representative host model RS-6843AOPC
(f) The module must be labelled with its permanently affixed FCC ID label, or use an electronic display (See KDB Publication 784748 about labelling requirements)	Complies. The label will be attached as shown below.	
(g) The module must comply with all specific rules applicable to the transmitter. The grantee must provide comprehensive instructions to explain compliance requirements	Complies. A user guide will be provided.	

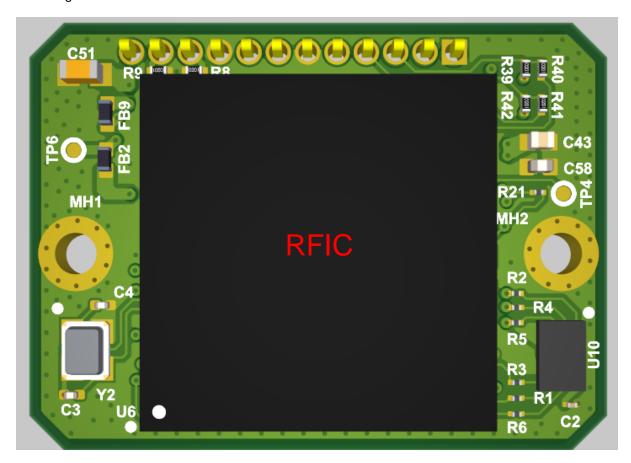


Modular approval requirement	Yes (provide brief statement)	No *
(h) The module must comply with RF	Complies. See report.	
exposure requirements		

Here is a detailed explanation of the shielding compliance:

a) The radio elements shall have the radio frequency circuitry shielded. Physical / discrete and tuning capacitors may be located external to the shield, but must be on the module assembly.

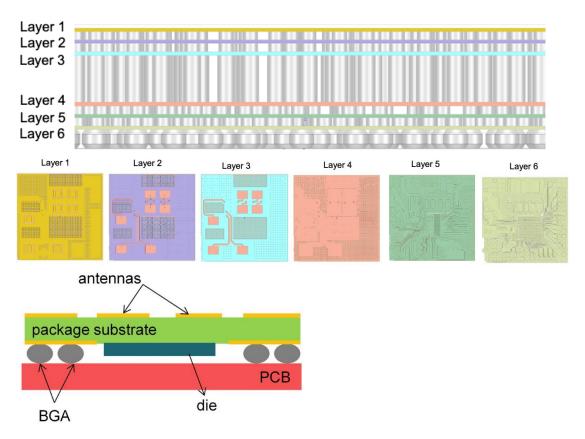
The RF circuitry is located solely within the RF Integrated Circuit device. Please see a rendering of the board below.



- Within the RFIC, the radio frequency part (die) is under-mount silicon attached to package substrate
- The package layer structure consists of 6 layers with top layer 1 containing the antenna structures (patches).
- Antennas are matched to 60GHz and will radiate radar sensor frequencies.
- Layer 4 is relatively solid ground layer and help shield unwanted radiations from undermount high frequency part from top side
- Die is surrounded by 90% BGA structures around and will help shield unwanted radiations from sides/edges
- PCB has a solid ground plane and will help shield unwanted radiations from bottom side



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Label location

This module is not sold separately, and is not installed in any hosts except for D3 hosts, and in case where the module will be integrated in other non-identical hosts in the future, we will expand the LMA to include the new hosts after an appropriate assessment to the FCC rules under C2PC.



Sincerely,

Define Design Deploy Corp. dba D3 150 Lucius Gordon Drive West Henrietta, NY 14586 +1 585-429-1550

Signed:

Printed name: Thomas C. Mayo

Thomas & Mayo

Title: Product Line Manager