

EXHIBIT 4A.1 – MANUFACTURERS’ DECLARATIONS FOR KU-BAND ANTENNAS

Declarations that:

The Antennas comply with the off-axis EIRP Density Envelopes set forth in 25.218(f)

And that

The Antennas will automatically cease transmissions with a mute command to the modem within 100 milliseconds if (there is a pointing error in which the angle) between the target satellite and the axis of the main lobe of the antenna exceeds 0.5° and will not resume until such angle is less than 0.2° -- thereby assuring compliance with 25.115(m)(3)(i) in accordance with 25.228(b).

FCC Declaration of Conformity

Intellian Technologies, manufactures of stabilized maritime VSAT antenna systems for satellite communication at sea, supplies stabilized maritime VSAT antenna systems to the satellite communication service providers for their ESV (Earth Station on Vessels) networks.

FCC §25.218 defines the provisions for blanket licensing of ESV antennas operation in the Ku-band. It defines the antennas radiation, and each article regulates the followings;

- §25.218 (f)(1): Regulation for Azimuth Direction & Co Polarization
- §25.218 (f)(2): Regulation for Other Direction & Co Polarization
- §25.218 (f)(3): Regulation for Cross Polarization

Intellian Technologies, Inc. declares that v45C complies with the threshold level as defined in §25.218(f)(1):, and declares that v45C is in accordance with all defined regulations from §25.218(f)(2) to §25.218(f)(3) at the below stated input power spectral density, with an N value of 1.

Product description	Intellian v45C, 45cm Ku-band maritime VSAT antenna system
EIRP spectral density limit	-21.77 dBW/ 4KHz

Intellian Technologies, Inc. declares that the above antennas will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c).

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Radiation pattern data is available upon request to verify the conformance.

Authority: Kevin Eom
/ CTO, R&D



Signature:  _____

Date: February 05, 2021

FCC Declaration of Conformity

Intellian Technologies, manufactures of stabilized maritime VSAT antenna systems for satellite communication at sea, supplies stabilized maritime VSAT antenna systems to the satellite communication service providers for their ESV (Earth Station on Vessels) networks.

FCC §25.218 defines the provisions for blanket licensing of ESV antennas operation in the Ku-band. It defines the antennas radiation, and each article regulates the followings;

- §25.218 (f)(1): Regulation for Azimuth Direction & Co Polarization
- §25.218 (f)(2): Regulation for Other Direction & Co Polarization
- §25.218 (f)(3): Regulation for Cross Polarization

Intellian Technologies, Inc. declares that v60E complies with the threshold level as defined in §25.218(f)(1);, and declares that v60E is in accordance with all defined regulations from §25.218(f)(2) to §25.218(f)(3) at the below stated input power spectral density, with an N value of 1.

Product description	Intellian v60E, 65cm Ku-band maritime VSAT antenna system
EIRP spectral density limit	-21.5 dBW/ 4KHz

Intellian Technologies, Inc. declares that the above antennas will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c).

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Radiation pattern data is available upon request to verify the conformance.

Authority: **Kevin Eom**
 / CTO, R&D



Signature:  _____

Date: **August 25, 2021** _____

Declaration of Conformity

KNS, manufacturer of stabilized maritime VSAT antenna systems for satellite communication at sea, supplies stabilized maritime VSAT antenna systems to the satellite communication service providers for their ESV (Earth Station on Vessels) networks.

FCC regulation 47 C.F.R. §25.218 defines the Off-axis EIRP density envelopes for FSS earth stations transmitting in the Ku-band. This declaration covers the requirements for meeting §25.218(f) by the demonstrations outlined in paragraphs §25.115(g)(1). The paragraph numbers in this declaration refer to the Dec. 2020 version of FCC 47 C.F.R. §25.218 and §25.115.

KNS hereby declares that the antenna listed below will meet the off-axis EIRP density requirements of §25.218(f) when the following input power spectral density limitation at the antenna feed flange is met:

- **KNS antenna model C4 is limited to -22.53 dBW/4kHz**

KNS Hereby declares that the above antenna will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c)

January 27, 2021

CTO, Gilsang, Ryu

Declaration of Conformity

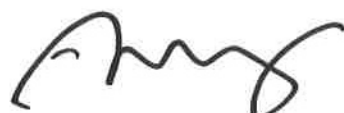
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FCC regulation 47 C.F.R. §25.218 defines the Off-axis EIRP density envelopes for FSS earth stations transmitting in the Ku-band. This declaration covers the requirements for meeting §25.218(f) by the demonstrations outlined in paragraphs §25.115(g)(1). The paragraph numbers in this declaration refer to the Dec. 2020 version of FCC 47 C.F.R. §25.218 and §25.115.

KNS hereby declares that the antenna listed below will meet the off-axis EIRP density requirements of §25.218(f) when the following input power spectral density limitation at the antenna feed flange is met:

- **KNS antenna model Z6MK4/Z6Mk2 is limited to -22.19 dBW/4kHz**

KNS Hereby declares that the above antenna will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c)



CTO, Gilsang, Ryu

February 17, 2021

Declaration of Conformity

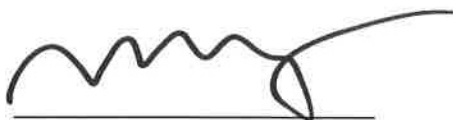
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KNS hereby declares that the antenna listed below will meet the off-axis EIRP density requirements of §25.218(f) when the following input power spectral density limitation at the antenna feed flange is met:

- **KNS antenna model Z7MK4/Z7Mk3/Z7Mk2 is limited to -21.86 dBW/4kHz**

KNS Hereby declares that the above antenna will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c)



CTO, Gilsang, Ryu

February 17, 2021

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KNS hereby declares that the antenna listed below will meet the off-axis EIRP density requirements of §25.218(f) when the following input power spectral density limitation at the antenna feed flange is met:

- **KNS antenna model Z8MK4/Z8Mk3/Z8Mk2 is limited to -20.53 dBW/4kHz**

KNS Hereby declares that the above antenna will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c)

February 17, 2021



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KNS hereby declares that the antenna listed below will meet the off-axis EIRP density requirements of §25.218(f) when the following input power spectral density limitation at the antenna feed flange is met:

- **KNS antenna model Z10MK4/Z10Mk3/Z10Mk2 is limited to -18.46 dBW/4kHz**

KNS Hereby declares that the above antenna will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.228 (b) and §25.228 (c)

February 17, 2021



CTO, Gilsang, Ryu