

ELECTRICAL SPECIFICATIONS

Antenna Model	VFT69383B11JN-518L/VFT69383W11JN-518L					
Number of Ports	3					
Port Configuration (Label)	1x- 3G/4G/ISM/CBRS (LTE/CELL)			1x - WiFi (WIFI)		
Frequency Bands, MHz	698- 806	824- 894	880- 960	1690-3800	2400-2500	4900- 6000
Peak Gain (*), Avg. dBi	-0.3	0.6	1.6	4.3	3.4	4.6
Peak Gain(*), Max. dBi	0.8	1.4	2.3	7.3	3.9	5.4
VSWR(**), Avg	1.7	1.6	1.6	1.4	1.4	1.2
VSWR(**), Max	2.5	2.0	2.0	2.1	2.0	2.0
Isolation(**) LTE to WiFi (dB)	-46	-45	-46	-24	-24	-35
Isolation(**) LTE1 to GNSS (dB)	-46	-44	-43	-44	-60	-51
Isolation(**) WiFi to GNSS (dB)	-74	-74	-74	-55	-55	-52
Azimuth 3 dB Beamwidth	360°, Omnidirectional					
Nominal Impedance	50 Ω					
Polarization	Linear Vertical					
Max Power/port- Ambient 25°C (W)	30 (LTE/CELL); 10 (WIFI)					

Notes:

- (*) This parameters is based on 1ft cable length & 1ft ground plane.
- (**) This parameters is based on 17ft cable length & 1ft ground plane.
- Antenna specification is subjected to change according to the ground plane size.

GNSS SPECIFICATION

PARAMETER	SPECIFICATION		
Frequency of Operation (MHz)	1559 - 1606		
Band	BEIDOU	GPS	GLONASS
Frequency Band (MHz)	1561.098 ±2.046	1575.42 ±1.023	1602 ±5
Antenna Gain (dBi)	3.4	4.5	5.6
LNA Gain Typ. @ room temp. (dBi)	28±3		
Noise Figure @ room temp., Max (dB)	≤ 2.5 @ 1575 MHz		
Max VSWR @ room temp.	≤ 2.0		
Polarization	RHCP		
Nominal Impedance	50 Ω		
DC Voltage (Vdc)	3.3		
Operating Supply Voltage (Vdc)	2.5 - 7.0		
Current Consumption, Max @ room temp mA)	20		
Out-of-band Signal Rejection Min @ room temp (dBc)	> 88	> 84	> 86
Input Max Power (dBm)	-33		
Cable Type	RG174		
Cable length, cm	518		
Connector	SMA, Male		

MECHANICAL SPECIFICATIONS

Dimensions- L x W x H mm (inches)	179 x 63 x 48 mm (7.04 x 2.48 x 1.69)
Weight, kg (lbs)	0.73 kg (1.6 lbs)
Mounting	P- Mount
Cable Type	LMR 100- pigtails, LMR 195- jumper cables
Color	Black or White
Radome Material	PC, UL94-V0
Baseplate Material	Aluminum

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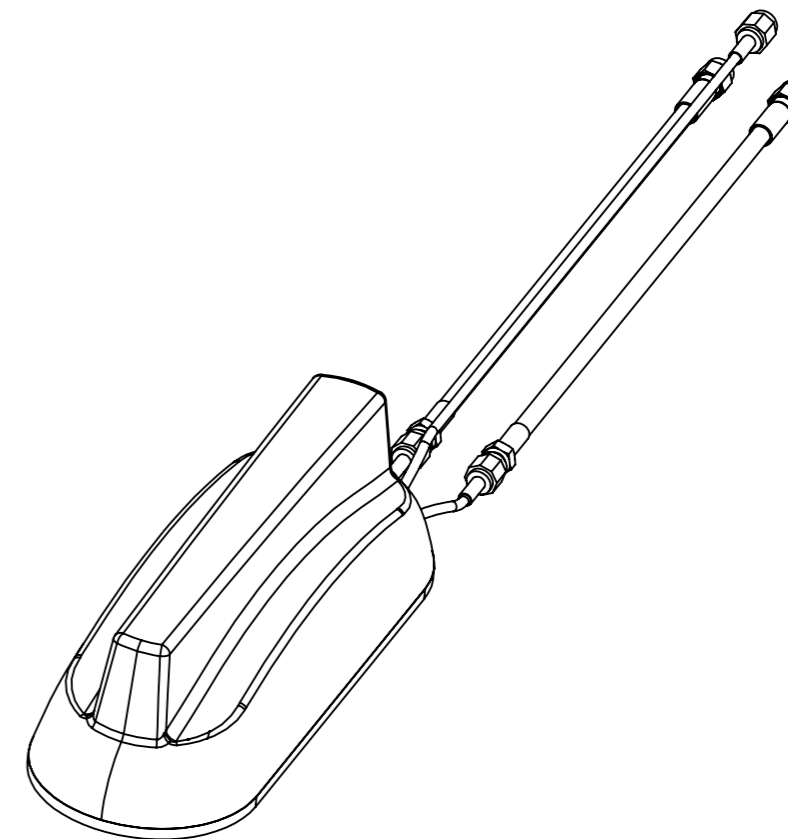
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REVISIONS

REV.	ECN#	ZONE	DESCRIPTION	CHANGED BY/DATE	APPROVED BY/DATE
F01			INITIAL RELEASE	LCTAN 10MAR20	TERENCE 10MAR20
F02	ECO-20-00152		CHANGE DESIGN & UPDATE SPECIFICATION	LCTAN 15SEP20	TERENCE 15SEP20
F03	ECO-20-00032		UPDATE VIEW	LCTAN 05JAN21	TERENCE 05JAN21

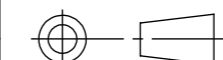
**ENVIRONMENTAL SPECIFICATIONS**

Operating Environment	Outdoor Vehicle
Operating Temperature, °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature	-40 to +85 (-40 to +185)
Ingress Protection	IP67
Rail Compliance Standards	EN61373 (Shock & Vibration), EN50155 (Temperature)
Material Substance Compliance	RoHS Compliant

MATERIAL: SEE BOM

THIRD ANGLE PROJECTION

FINISH: N/A



DO NOT SCALE DRAWING

APPROVALS

DATE

DRAWN BY LCTAN 19AUG20

ELEC. ENG. TH LEE 19AUG20

MECH. ENG. WTNG 19AUG20

MFG./OPS. GL YEAP 19AUG20

INTERPRET DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-2009

TOLERANCES UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN MILLIMETERS

ANGLE: ±30'

0 PLACE DECIMAL: ±0.5

1 PLACE DECIMAL: ±0.25

2 PLACE DECIMAL: ±0.13

SURFACE ROUGHNESS 1.6/√



TITLE:

VFT69383x11JN-518L

SIZE

DWG. NO.

A3 VFT69383x11JN-518LMO

REV

F03

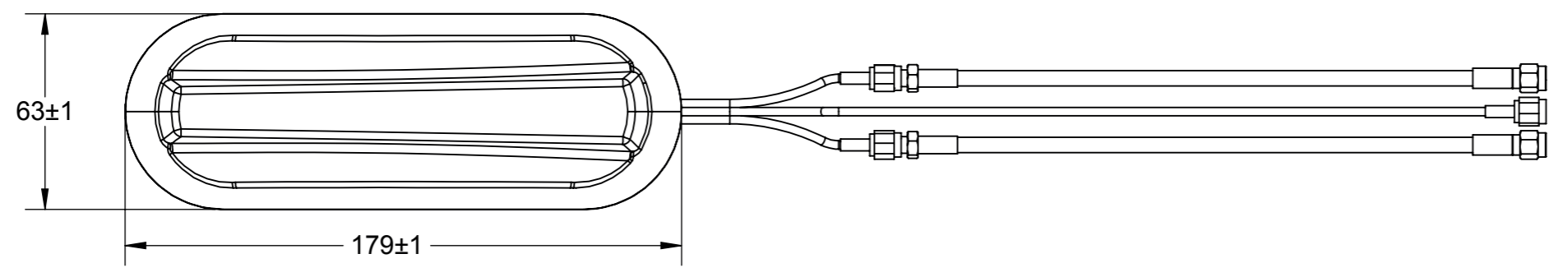
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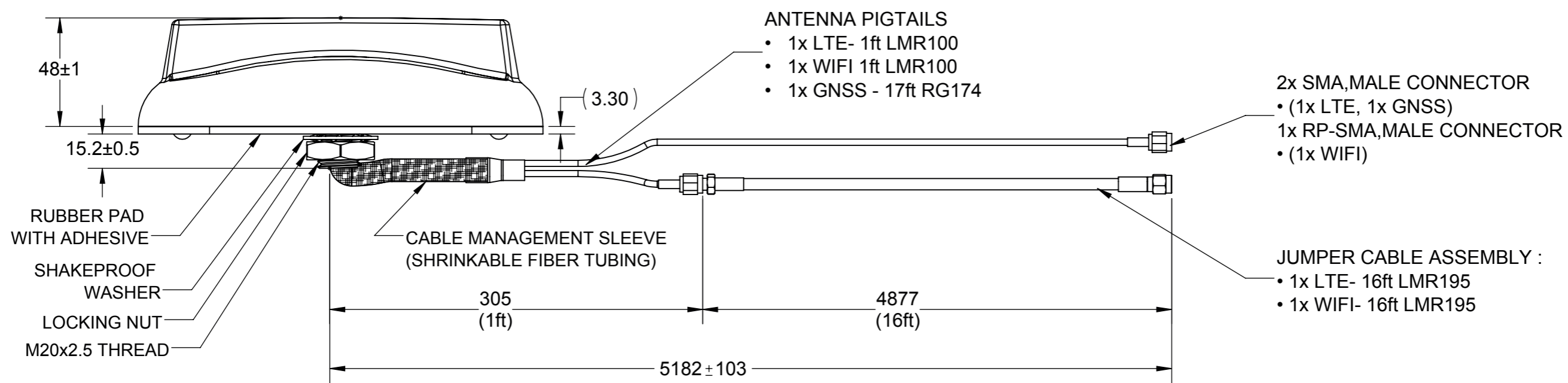
SHEET 1 OF 2

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D D



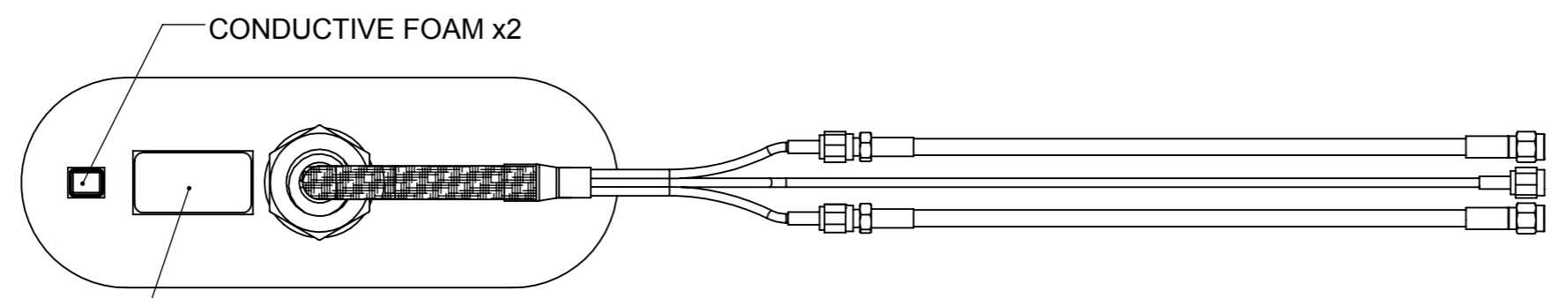
C C



(EXPOSED CABLE LENGTH MEASURED AFTER THREAD STUD)

B B

A A



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SIZE	DWG. NO.	REV
A3	VFT69383x11JN-518LMO	F03
SCALE: 1:2	PREVIOUS# ERROR!Old Number	SHEET 2 OF 2

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