

ELECTRICAL SPECIFICATIONS									
Antenna Model	VFT69383B2NJV-518Q / VFT69383W2NJV-518Q								
Number of Ports	3								
Port Configuration (Label)	2x- 3G/4G/ISM/CBRS (LTE/CELL)								
Frequency Bands, MHz	698- 806	824- 894	880- 960	1690-1880	1850- 1990	1910- 2180	2300-2500	2500-2700	3300-3800
Peak Gain (*), Avg. dBi	0.7	0.5	0.2	3.7	3.0	2.5	3.7	4.6	5.5
Peak Gain (*), Max. dBi	2.0	1.3	2.2	4.7	3.6	3.4	5.1	5.1	7.5
VSWR(**), Avg	1.8	1.8	1.4	1.6	1.6	1.5	1.4	1.4	1.5
VSWR(**), Max	2.5	2.2	2.2	2.0	2.0	2.2	2.1	2.0	2.0
Isolation LTE1 to LTE2 (dB)	-10	-12	-14	-17	-18	-18	-22	-21	-25
Isolation LTE1 to GNSS (dB)	-41	-45	-45	-41	-49	-50	-60	-56	-47
Isolation LTE2 to GNSS (dB)	-42	-38	-38	-44	-49	-49	-41	-55	-44
Azimuth 3 dB Beamwidth	360°, Omnidirectional								
Nominal Impedance	50 Ω								
Polarization	Linear Vertical								
Max Power/port- Ambient 25°C (W)	30 (LTE/CELL)								

Notes:

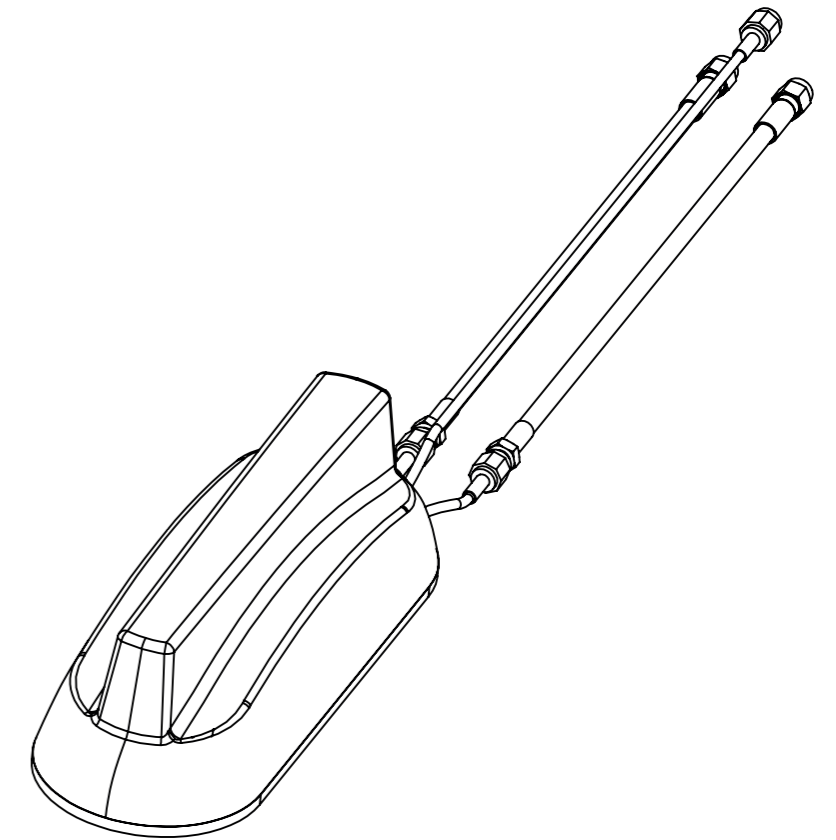
- (\*) This parameters is based on 1ft cable length & 1ft ground plane.
- (\*\*) This parameters is based on 17ft cable length & 1ft ground plane.
- Antenna specification is subjected to change according to the ground plane size.

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	4.9	5.4
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)	0.74 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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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 21SEP20	TERENCE 21SEP20
F03	ECO-20-00032		UPDATE VIEW	LCTAN 05JAN21	TERENCE 05JAN21

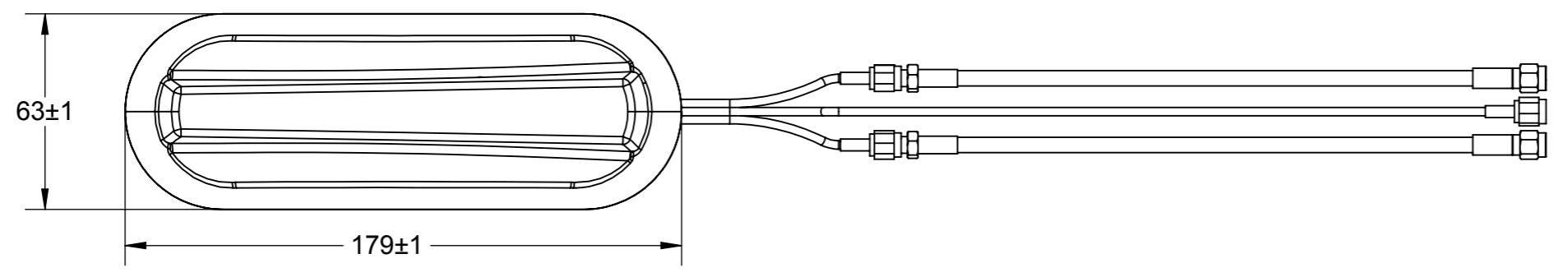


ENVIRONMENTAL SPECIFICATIONS	
Operating Environment	Outdoor Vehicle
Operating Temperature, °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature	-40 to +85 (-40 to +185)
Ingress Protection	IP67
Rail Compliance Standards	EN61373 (Shock & Vibration), EN50155 (Temperature)
Material Substance Compliance	RoHS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

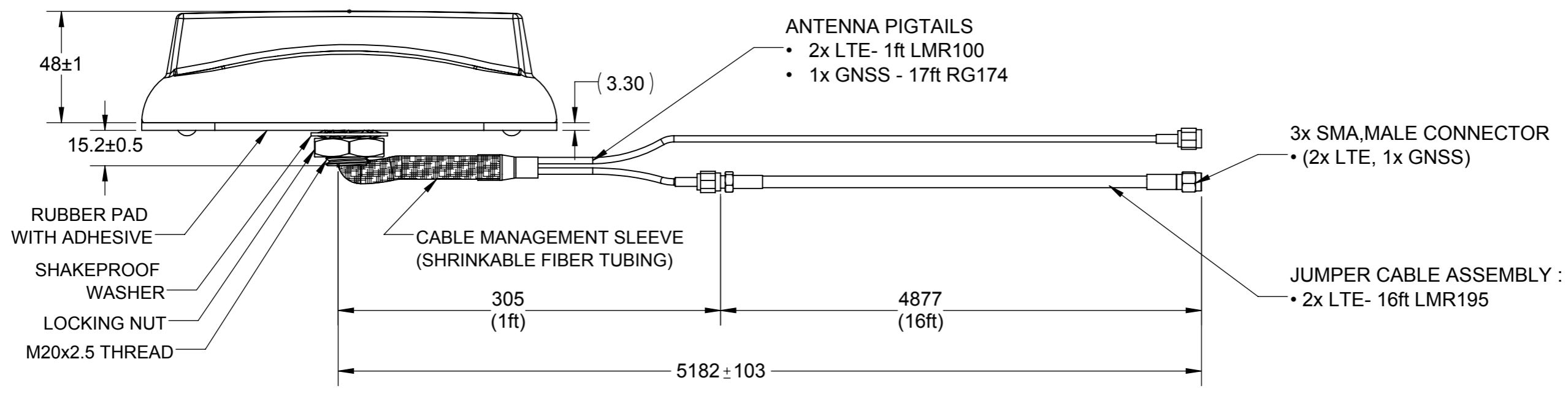
MATERIAL: SEE BOM	THIRD ANGLE PROJECTION		<b>TITLE:</b> <b>VFT69383x2NJV-518Q</b>	
FINISH: N/A	DO NOT SCALE DRAWING			
APPROVALS		INTERPRET DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-2009 TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS	<b>SIZE</b> <b>A3</b>	
DRAWN BY	DATE			
ELEC. ENG.	DATE			
MECH. ENG.	DATE			
MFG./OPS.	DATE	ANGLE: ±30' 0 PLACE DECIMAL: ±0.5 1 PLACE DECIMAL: ±0.25 2 PLACE DECIMAL: ±0.13 SURFACE ROUGHNESS 1.6/√	<b>DWG. NO.</b> <b>VFT69383x2NJV-518QMO</b>	<b>REV</b> <b>F03</b>
SCALE: 1:2		PREVIOUS# ERROR!:Old Number		SHEET 1 OF 2

6 5 4 3 2 1

D D



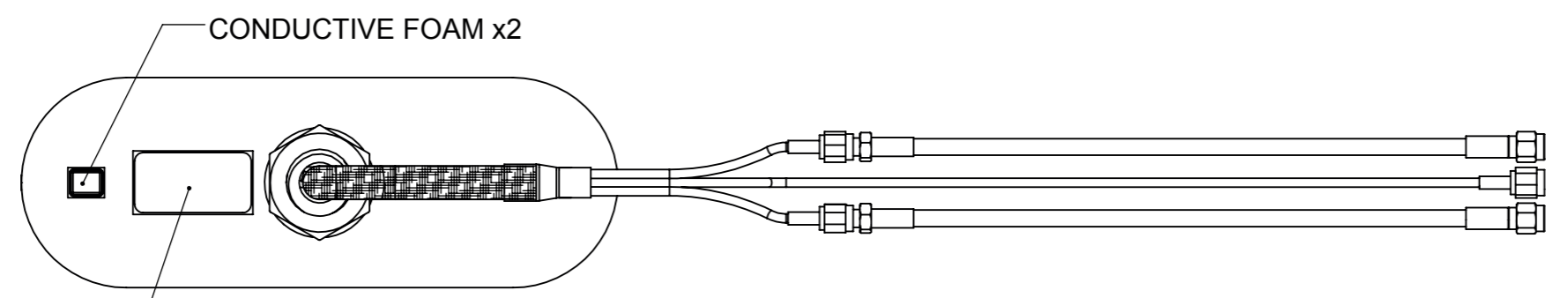
C C



B B

(EXPOSED CABLE LENGTH MEASURED AFTER THREAD STUD)

A A



UNIT LABEL



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SIZE	DWG. NO.	REV
A3	VFT69383x2NJN-518QMO	F03
SCALE: 1:2	PREVIOUS# ERROR!:Old Number	SHEET 2 OF 2

FPEN001.015 E 6 5 4 3 2 1