

ELECTRICAL SPECIFICATIONS									
Antenna Model	VFT69383B2NJNI-518Q / VFT69383W2NJNI-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:

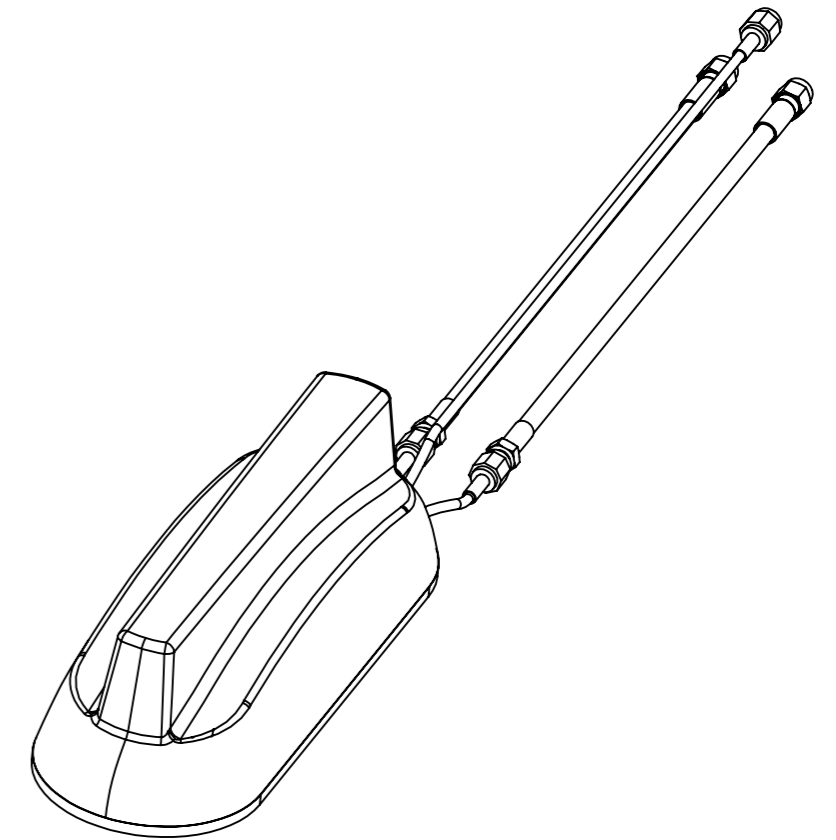
- (*) This parameters is based on 1ft cable length & 1ft ground plane.
- (**) This parameters is based on 17ft cable length & 1ft ground plane.
- Antenna specification is subjected to change according to the ground plane size.

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		

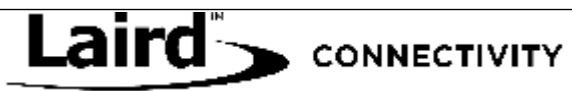
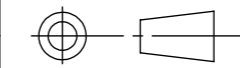
MECHANICAL SPECIFICATIONS	
Dimensions- L x W x H mm (inches)	179 x 63 x 48 mm (7.04 x 2.48 x 1.69)
Weight, kg (lbs)	0.74 kg (1.6 lbs)
Mounting	P- Mount
Cable Type	LMR 100- pigtails, LMR 195- jumper cables
Color	Black or White
Radome Material	PC, UL94-V0
Baseplate Material	Aluminum

UNLESS OTHERWISE NOTED, THIS DOCUMENT CONTAINS LAIRD CONNECTIVITY CONFIDENTIAL INFORMATION. REPRODUCTION, USE, DISCLOSURE OR TRANSMITTAL OF ALL OR ANY PART OF THIS DOCUMENT IS PROHIBITED EXCEPT TO THE EXTENT APPROVED IN WRITING BY AN AUTHORIZED REPRESENTATIVE OF LAIRD CONNECTIVITY. LAIRD CONNECTIVITY RESERVES ALL RIGHTS UNDER PATENTS, TRADEMARKS, COPYRIGHTS AND TRADE SECRETS. COPYRIGHT, LAIRD CONNECTIVITY 2020. ALL RIGHTS RESERVED.

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

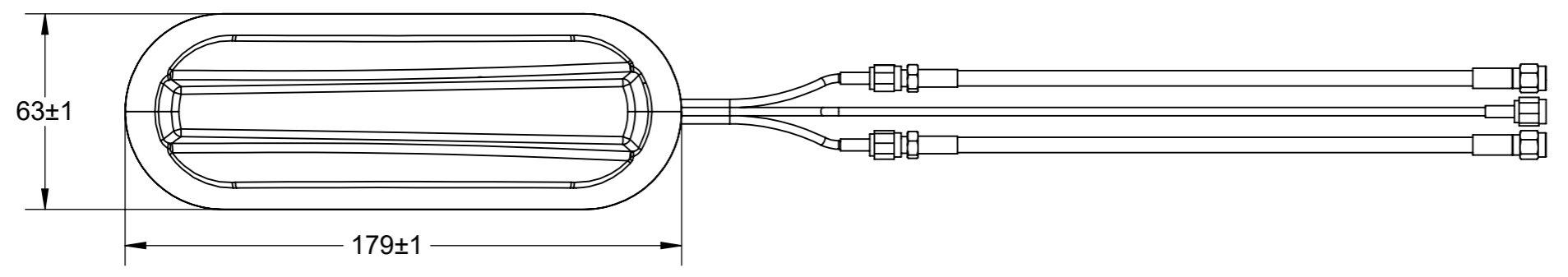


ENVIRONMENTAL SPECIFICATIONS	
Operating Environment	Outdoor Vehicle
Operating Temperature, °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature	-40 to +85 (-40 to +185)
Ingress Protection	IP67
Rail Compliance Standards	EN61373 (Shock & Vibration), EN50155 (Temperature)
Material Substance Compliance	RoHS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

MATERIAL: SEE BOM		THIRD ANGLE PROJECTION		 PENANG, MALAYSIA	
FINISH: N/A		 DO NOT SCALE DRAWING			
APPROVALS		DATE		TITLE:	
DRAWN BY	LCTAN	19AUG20		VFT69383x2NJNI-518Q MOUNTING & OUTLINE	
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		SIZE	
DIMENSIONS ARE IN MILLIMETERS		ANGLE: ±30'		A3	
		0 PLACE DECIMAL: ±0.5		DWG. NO.	
		1 PLACE DECIMAL: ±0.25		VFT69383x2NJNI-518QMO	
		2 PLACE DECIMAL: ±0.13		REV	
		SURFACE ROUGHNESS 1.6/√		F03	
SCALE: 1:2		PREVIOUS# ERROR!:Old Number		SHEET 1 OF 2	

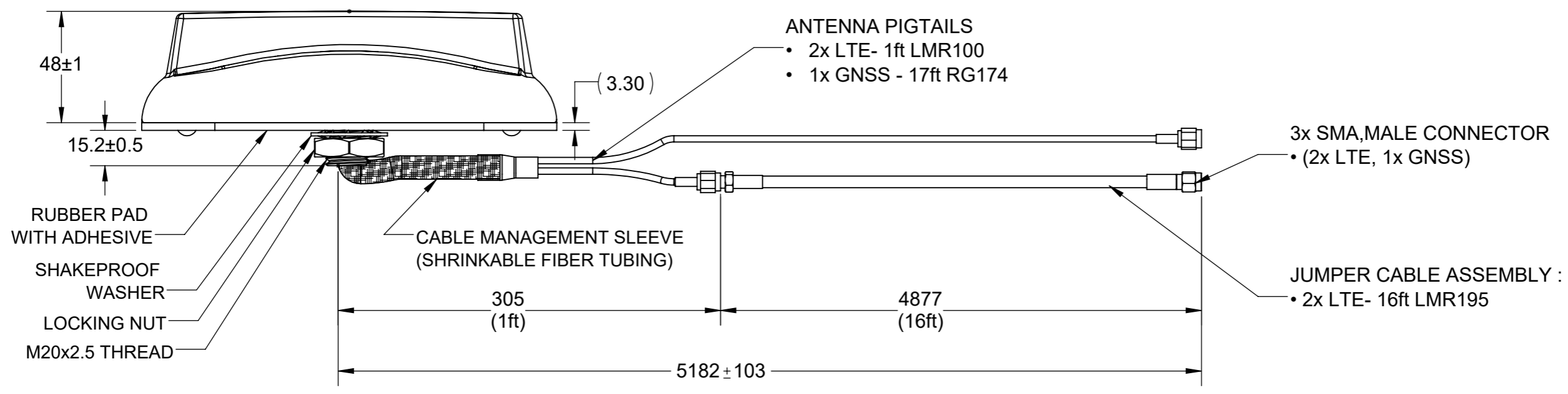
6 5 4 3 2 1

D



D

C



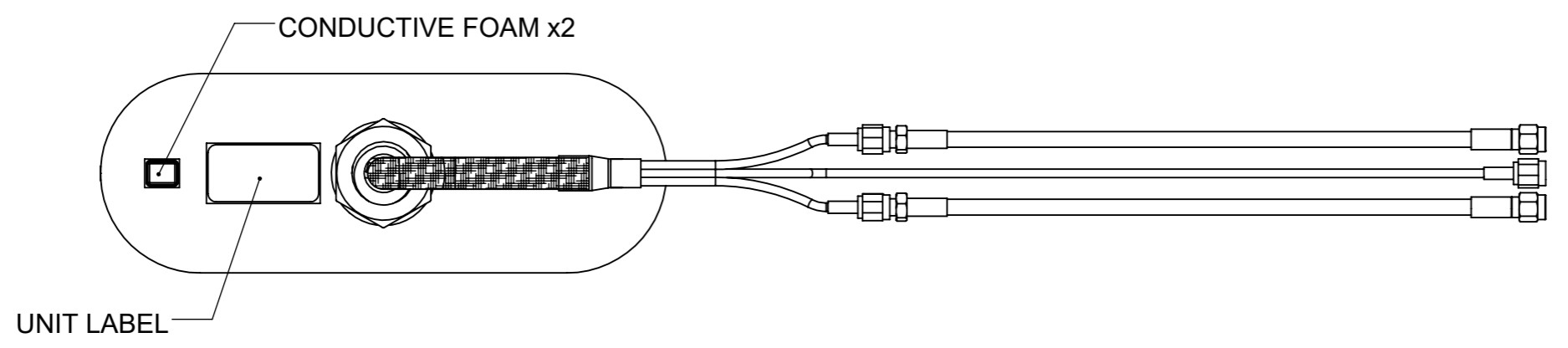
C

B

(EXPOSED CABLE LENGTH MEASURED AFTER THREAD STUD)

B

A



A

Laird ™ CONNECTIVITY		
PENANG, MALAYSIA		
SIZE A3	DWG. NO. VFT69383x2NJN-518QMO	REV F03
SCALE: 1:2	PREVIOUS# ERROR!:Old Number	SHEET 2 OF 2