

Wi-Fi 6/ 6E TRIPLE BAND EMBEDDED ANTENNA

Part Numbers: 2118907-1 ~ -9, 1-2118907-1 ~ -5

FEATURES & BENEFITS

- Wi-Fi 6, also including WiFi 6E new 6GHz band, Bluetooth, ZigBee
- Flexible PCB monopole antenna assembly
- Adhesive backing on the flexible PCB simplifies mounting within the device
- Global Frequency coverage
- Different cable length and connector options available

SPECIFICATIONS (Shown as 2118907-1 : Others can vary with different cable lengths.)

Frequency Range (MHz)	2400-2500	5150-5875	5925-7125
VSWR	< 1.4:1	< 1.6:1	< 1.9:1
Average Efficiency	82%	73%	75%
Peak Gain	3.0 dBi	3.1 dBi	3.5 dBi
Average Gain	-0.9dBi	-1.4dBi	-1.4dBi
Power Handling	10-Watt cw		
Feed Point Impedance	50 ohms unbalanced		
Polarization	Linear		
Size	29.6 mm x 41.2 mm x 0.3 mm		
Weight	< 3.3 g		
Mounting	Adhesive Tape		
Mating Connector	MHF and MHF4-type Refer to page 7		
Cable (Coaxial)	1.37mm and 1.13mm Dia. Refer to page 9		
Operating Temperature	-40 to +85°C		
Storage Temperature	-40 to +85°C		
Hazardous Materials	A certificate of conformance is available from the product page on TE website.		

RF SPCIFICATIONS FOR DIFFERENT CABLES

P/N	Cable Length (mm)	Connector	Cable OD (mm)	RF DATA	VSWR(MHz)		
					2400-2500	5150-5875	5925-7125
2118907-1	115	MHF	1.37	VSWR	< 1.4:1	< 1.6:1	< 1.9:1
				Aver. Eff.	82 %	73 %	75 %
				Peak Gain (Max)	3.0 dBi	3.1 dBi	3.5 dBi
				Aver. Gain	-0.9 dBi	-1.4 dBi	-1.4 dBi
2118907-2	50	MHF	1.37	VSWR	< 1.3:1	< 1.8:1	< 1.9:1
				Aver. Eff.	85 %	77 %	80 %
				Peak Gain (Max)	3.2 dBi	3.3 dBi	3.8 dBi
				Aver. Gain	-0.7 dBi	-1.2 dBi	-1.1 dBi
2118907-3	100	MHF	1.37	VSWR	< 1.4:1	< 1.9:1	< 2.0:1
				Aver. Eff.	83 %	74 %	76 %
				Peak Gain (Max)	3.0 dBi	3.2 dBi	3.6 dBi
				Aver. Gain	-0.9 dBi	-1.3 dBi	-1.3 dBi
2118907-4	150	MHF	1.37	VSWR	< 1.3:1	< 1.6:1	< 2.2:1
				Aver. Eff.	80 %	71 %	73 %
				Peak Gain (Max)	2.9 dBi	3.0 dBi	3.4 dBi
				Aver. Gain	-1.0 dBi	-1.5 dBi	-1.5 dBi
2118907-5	200	MHF	1.37	VSWR	< 1.2:1	< 1.6:1	< 2.0:1
				Aver. Eff.	78 %	68 %	69 %
				Peak Gain (Max)	2.8 dBi	2.8 dBi	3.2 dBi
				Aver. Gain	-1.1 dBi	-1.7 dBi	-1.7 dBi

CABLE LOSS

OD 1.37mm (P/N: 1-1569222-0)			
Freq. Range (MHz)	2400-2500	5150-5875	5925-7125
Cable attenuation (dB/m)	< 2.4	< 3.7	< 4.1

RF SPCIFICATIONS FOR DIFFERENT CABLES

P/N	Cable Length (mm)	Connector	Cable OD (mm)	RF DATA	VSWR(MHz)		
					2400-2500	5150-5875	5925-7125
1-2118907-1	250	MHF	1.37	VSWR	< 2.2:1	< 2.4:1	< 2.0:1
				Aver. Eff.	76 %	65 %	66 %
				Peak Gain (Max)	2.7 dBi	2.6 dBi	2.9 dBi
				Aver. Gain	-1.2 dBi	-1.9 dBi	-2.0 dBi
1-2118907-2	300	MHF	1.37	VSWR	< 2.1:1	< 2.3:1	< 2.0:1
				Aver. Eff.	74 %	62 %	63 %
				Peak Gain (Max)	2.6 dBi	2.4 dBi	2.7 dBi
				Aver. Gain	-1.3 dBi	-2.1 dBi	-2.2 dBi
1-2118907-5	400	MHF	1.37	VSWR	< 2.1:1	< 2.3:1	< 1.9:1
				Aver. Eff.	70 %	57 %	57 %
				Peak Gain (Max)	2.3 dBi	2.0 dBi	2.3 dBi
				Aver. Gain	-1.6 dBi	-2.5 dBi	-2.6 dBi

CABLE LOSS

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RF SPCIFICATIONS FOR DIFFERENT CABLES

P/N	Cable Length (mm)	Connector	Cable OD (mm)	RF DATA	VSWR(MHz)		
					2400-2500	5150-5875	5925-7125
2118907-6	50	MHF4L	1.13	VSWR	< 1.2:1	< 1.5:1	< 2.1:1
				Aver. Eff.	85 %	77 %	79 %
				Peak Gain (Max)	3.1 dBi	3.3 dBi	3.7 dBi
				Aver. Gain	-0.8 dBi	-1.2 dBi	-1.2 dBi
2118907-7	100	MHF4L	1.13	VSWR	< 1.4:1	< 1.7:1	< 2.1:1
				Aver. Eff.	82 %	73 %	75 %
				Peak Gain (Max)	3.0 dBi	3.1 dBi	3.5 dBi
				Aver. Gain	-0.9 dBi	-1.4 dBi	-1.4 dBi
2118907-8	150	MHF4L	1.13	VSWR	< 1.4:1	< 1.5:1	< 2.1:1
				Aver. Eff.	79 %	69 %	71 %
				Peak Gain (Max)	2.9 dBi	2.9 dBi	3.2 dBi
				Aver. Gain	-1.0 dBi	-1.6 dBi	-1.7 dBi
2118907-9	200	MHF4L	1.13	VSWR	< 1.3:1	< 1.5:1	< 2.1:1
				Aver. Eff.	77 %	66 %	67 %
				Peak Gain (Max)	2.7 dBi	2.6 dBi	3.0 dBi
				Aver. Gain	-1.2 dBi	-1.9 dBi	-1.9 dBi

CABLE LOSS

OD 1.13mm (P/N: 6-1569498-7)			
Freq. Range (MHz)	2400-2500	5150-5875	5925-7125
Cable attenuation (dB/m)	< 2.8	< 4.4	< 4.9

RF SPCIFICATIONS FOR DIFFERENT CABLES

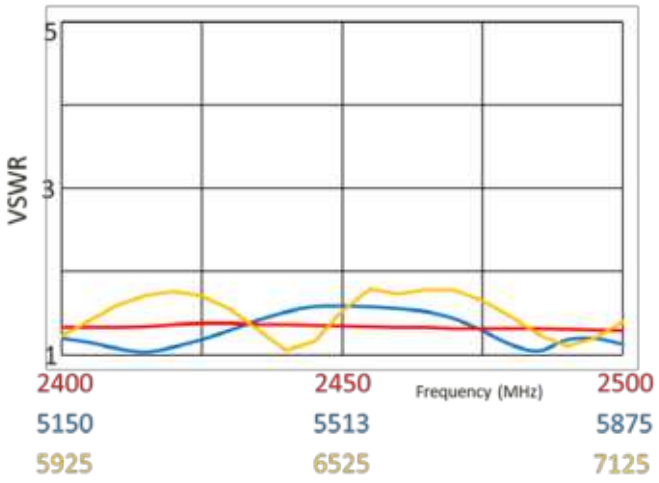
P/N	Cable Length (mm)	Connector	Cable OD (mm)	RF DATA	VSWR(MHz)		
					2400-2500	5150-5875	5925-7125
1-2118907-3	250	MHF4L	1.13	VSWR	< 1.6:1	< 1.6:1	< 2.0:1
				Aver. Eff.	74 %	62 %	63 %
				Peak Gain (Max)	2.6 dBi	2.4 dBi	2.7 dBi
				Aver. Gain	-1.3 dBi	-2.1 dBi	-2.2 dBi
1-2118907-4	300	MHF4L	1.13	VSWR	< 1.5:1	< 1.7:1	< 2.0:1
				Aver. Eff.	72 %	59 %	60 %
				Peak Gain (Max)	2.4 dBi	2.2 dBi	2.5 dBi
				Aver. Gain	-1.5 dBi	-2.3 dBi	-2.4 dBi

CABLE LOSS

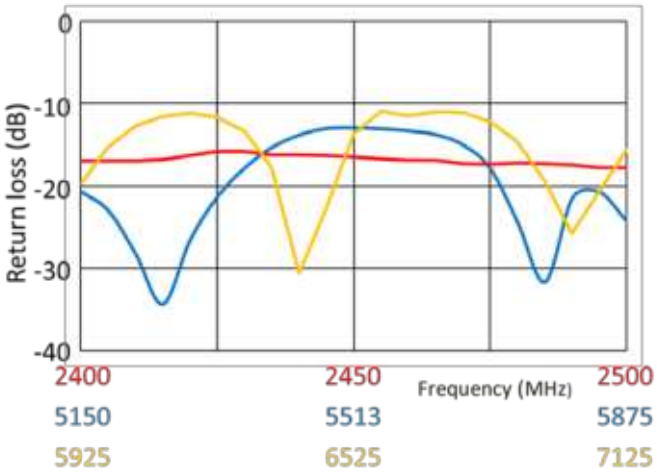
OD 1.13mm (P/N: 6-1569498-7)			
Freq. Range (MHz)	2400-2500	5150-5875	5925-7125
Cable attenuation (dB/m)	< 2.8	< 4.4	< 4.9

RF DATA (Shown as 2118907-1 : Others can vary with different cable lengths.)

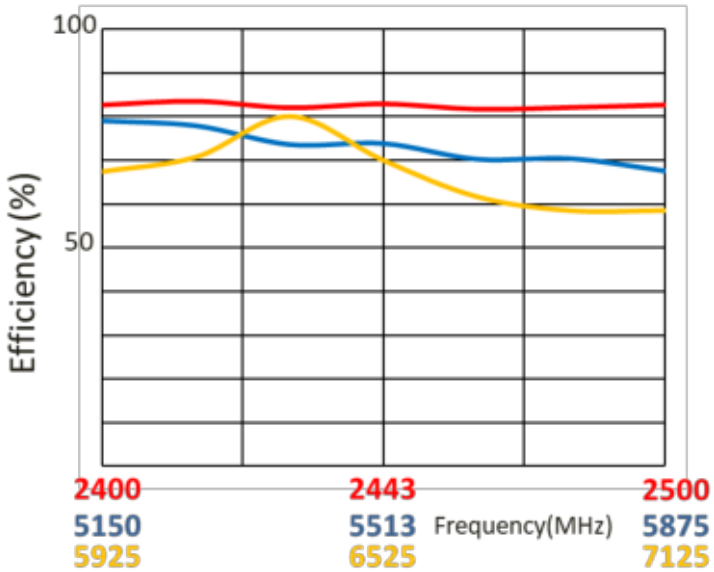
VSWR



Return Loss



Efficiency

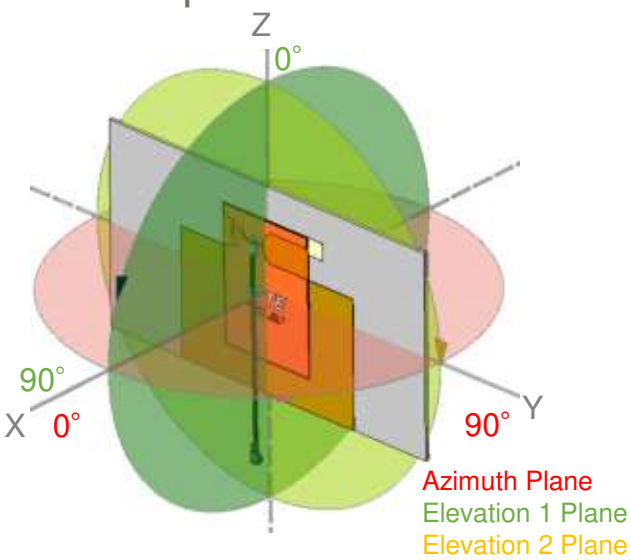


Data measured in free space and on plastic device enclosure

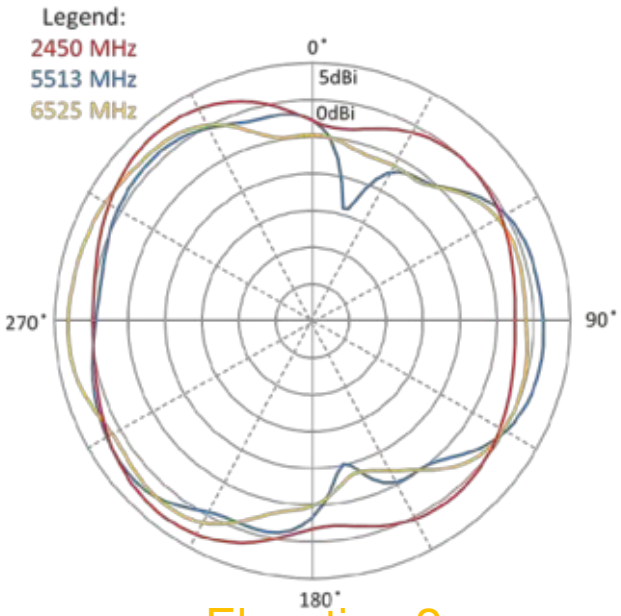
RADIATION PATTERN

(Shown as 2118907-1 : Others can vary with different cable lengths.)

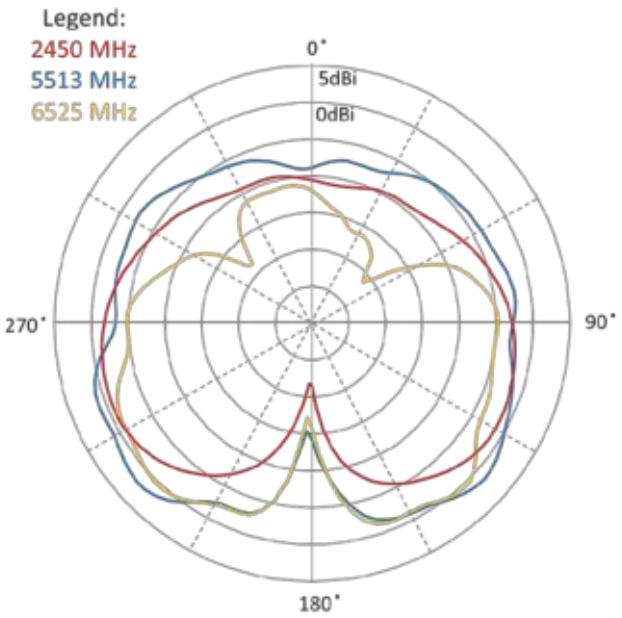
Test setup



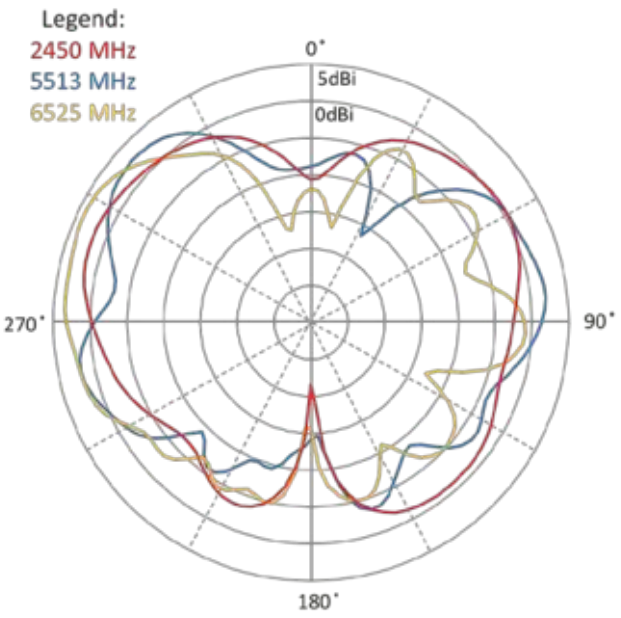
Azimuth



Elevation 1

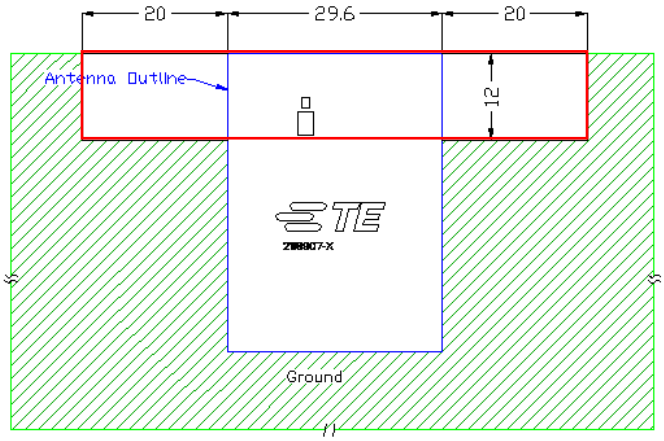


Elevation 2



Data measured in free space and on plastic device enclosure

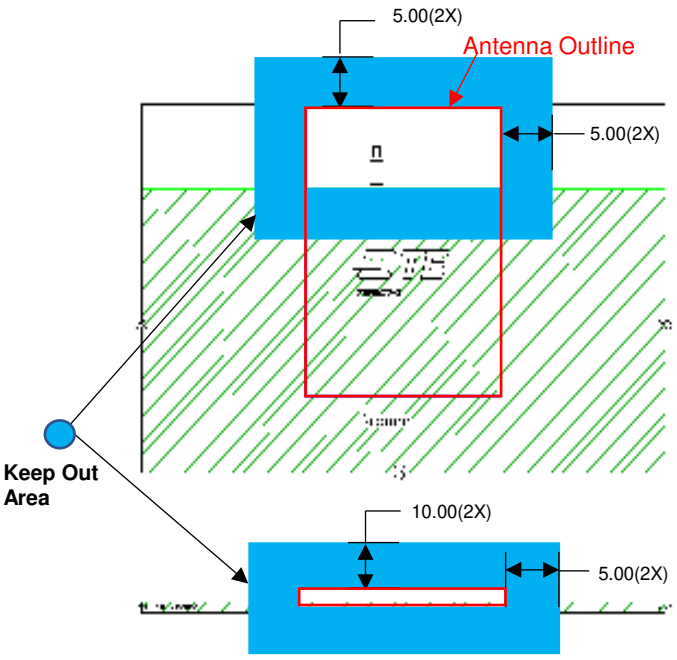
MOUNTING GUIDE



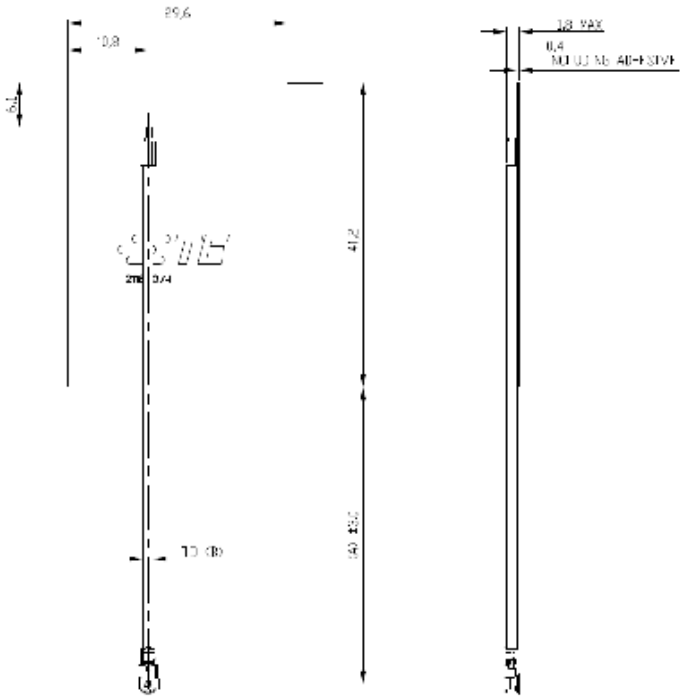
NOTES: 1. No copper allowed in designated area on all PCB layers –
2. For more information please call TE.

Dimensions: mm
Diagram is not to scale

KEEP OUT AREA



DIMENSIONS

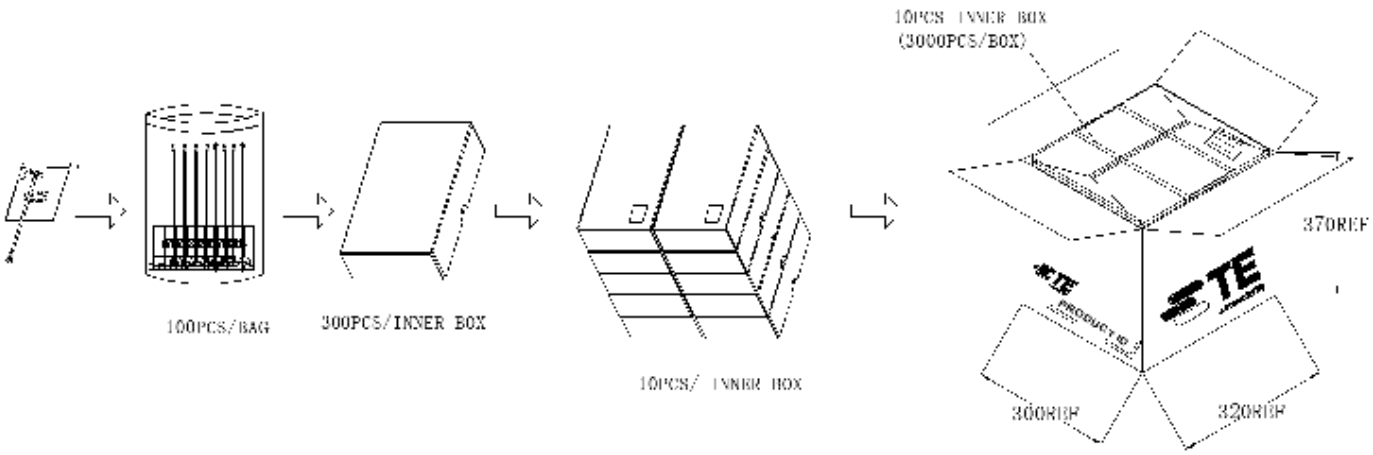


Dimensions: mm
Diagram is not to scale

MATING COMPONENTS TO PART NUMBERS AND DIMENSIONS

PART NUMBER	CABLE LENGTH(A) MM	CABLE LENGTH(A) INCH	CABLE O.D(B) MM	CONNECTOR TYPE (ON CABLE)	MATING COMPONENTS PART NUMBER	IMAGE
2118907-1	115	4.53	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2118907-2	50	1.97	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2118907-3	100	3.94	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2118907-4	150	5.91	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2118907-5	200	7.78	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
1-2118907-1	250	9.84	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
1-2118907-2	300	11.81	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
1-2118907-5	400	15.75	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2118907-6	50	1.97	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
2118907-7	100	3.94	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
2118907-8	150	5.91	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
2118907-9	200	7.78	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
1-2118907-3	250	9.84	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
1-2118907-4	300	11.81	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	

PACKAGING



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