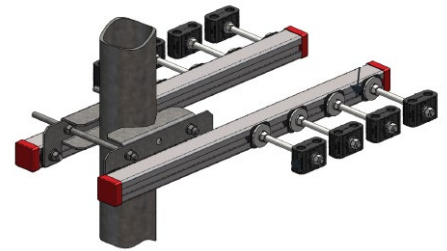


Part number(s): See table below

Description: Low PIM cable support mount designed to secure multiple Cable Support Blocks to 2.375 to 4.5-inch OD galvanized steel pipe or to wall. Mount utilizes an extruded aluminum rail with custom channel runners designed to prevent metal-to-metal contact. Assembly torque = 15 FT-LB for M10 fasteners and 10 FT-LB for 3/8 fasteners.

Part number 900356 was tested. The other part numbers listed are qualified by similarity.

900356	PIM Shield Cable Support Rail, Pole Mount Kit, 12 in
900357	PIM Shield Cable Support Rail, Pole Mount Kit, 24 in
900358	PIM Shield Saddle Bracket Kit With Tabs
900359-12	PIM Shield Rail Kit, 12 in
900359-24	PIM Shield Rail Kit, 24 in
900362-10	PIM Shield Channel Runner Kit, SS, 3/8 in
900360-10	PIM Shield Channel Runner Kit, Galvanized, M10 x 30mm
900361	PIM Shield Cable Support Rail, Wall Mount Brackets



Test conditions:

Tested in accordance with proposed IEC 62037-8 specification under the following test conditions:

- Object type: Non-flat
- Test type: Near Field
- Dynamic stimulus: Tap DUT with fiberglass rod while PIM testing
- Test power: 2x 43 dBm test tones
- IM product measured IM3
- Pass/Fail level: -97 dBm (-140 dBc)
- Frequency bands: 700 MHz band (F1 = 728 MHz, F2 = 754 MHz, IM3 = 780 MHz)
1900 MHz band (F1 = 1930 MHz, F2 = 1990 MHz, IM3 = 1870 MHz)

Test distance calculations:

5.1.4.1.2	Lowest test frequency	(MHz)	728	1930		
	Wavelength	(in)	16.2	6.1		
5.1.1	Galtronics D5778i	D (in)	13.8	13.8		
	Antenna Gain (dBi)	10 dBi ± 3 dB	8.8 dBi	8.6 dBi		
	Antenna beamwidth (deg)		60	60		
			5.1.4.2	5.1.4.2		
		Tolerance	Distance (in)	Test zone width (in)	Distance (in)	Test zone width (in)
5.1.4.1.1	FarField min (in)	0.25	19.4	22.4	60.8	70.2
	FarField nom (in)		23.5	27.1	62.3	71.9
	FarField max (in)	0.25	27.5	31.8	63.8	73.7
5.1.4.1.2	NearField min (in)	0.1	14.6	30.6	5.5	20.2
	NearField nom (in)		16.2	32.5	6.1	20.9
	NearField max (in)	0.1	17.8	34.4	6.7	21.6

Test Results Summary:

		IM3 @ 2x +43 dBm Test Power (dBm)					
Specification (dBm)	-97	Port / Band	Residual PIM	Front	R-Side	L-Side	Back
Result	PASS	M45 / 700	-117.9	-111.9	-116.1	-112.3	-120.2
		P45 / 700	-112.6	-114.2	-120.4	-118.8	-115.7
		M45 / 1900	-112.0	-111.4	-111.6	-111.4	-111.4
		P45 / 1900	-121.9	-123.2	-121.7	-123.7	-123.1
		M45 Return Loss Verification (dB)					
		Frequency	Front	R-Side	L-Side	Back	
Specification (dB)	10	F1	728 MHz	18.1	18.2	17.6	17.8
Result	PASS	F2	754 MHz	16.6	16.3	17.6	17.3
		IM3	780 MHz	17.4	17.3	16.2	16.8
		IM3	1870 MHz	28.2	23.7	25.2	32.0
		F2	1930 MHz	25.5	29.4	31.9	23.0
		F1	1990 MHz	28.5	28.6	27.0	28.5
		P45 Return Loss Verification (dB)					
		Frequency	Front	R-Side	L-Side	Back	
Specification (dB)	10	F1	728 MHz	19.3	19.8	19.1	19.8
Result	PASS	F2	754 MHz	18.0	17.3	17.3	18.7
		IM3	780 MHz	21.4	20.3	20.8	19.6
		IM3	1870 MHz	26.9	26.0	28.9	22.6
		F2	1930 MHz	17.3	16.7	18.3	15.6
		F1	1990 MHz	26.0	22.8	23.3	21.8

PIM Test Data: 700 MHz

| SITE DETAILS

Site	Sector	Feeder	Operator
900356	NA	NA	T BELL

| TEST PARAMETERS

Tone 1 Frequency	Tone 2 Frequency	IM3 Frequency
728.0 MHz	754.0 MHz	780.0 MHz

| TEST RESULTS

Test Point	Time	P1 P2	PIM Threshold	PIM	Peak PIM	Result
700 RES P45	2019-02-01 12:58	43.0 dBm 43.0 dBm	-100.0 dBm	-112.8 dBm	-112.6 dBm	Pass
700 FRONT P45	2019-02-01 13:01	43.0 dBm 43.0 dBm	-100.0 dBm	-117.0 dBm	-114.2 dBm	Pass
700 R SIDE P45	2019-02-01 13:02	43.0 dBm 43.0 dBm	-100.0 dBm	-120.5 dBm	-120.4 dBm	Pass
700 L SIDE P45	2019-02-01 13:03	43.0 dBm 43.0 dBm	-100.0 dBm	-121.2 dBm	-118.8 dBm	Pass
700 BACK P45	2019-02-01 13:04	43.0 dBm 43.0 dBm	-100.0 dBm	-118.4 dBm	-115.7 dBm	Pass
700 RES M45	2019-02-01 13:07	43.0 dBm 43.0 dBm	-100.0 dBm	-118.8 dBm	-117.9 dBm	Pass
700 FRONT M45	2019-02-01 13:08	43.0 dBm 43.0 dBm	-100.0 dBm	-115.9 dBm	-111.9 dBm	Pass
700 R SIDE M45	2019-02-01 13:10	43.0 dBm 43.0 dBm	-100.0 dBm	-118.2 dBm	-116.1 dBm	Pass
700 L SIDE M45	2019-02-01 13:11	43.0 dBm 43.0 dBm	-100.0 dBm	-114.2 dBm	-112.3 dBm	Pass
700 BACK M45	2019-02-01 13:12	43.0 dBm 43.0 dBm	-100.0 dBm	-127.3 dBm	-120.2 dBm	Pass

Model	Serial Number	Calibration Due	SW/FW Versions
iQA-0700HC	TX2132100208	04 May 2019	2.10.0/2.2.0

PIM Test Data: 1900 MHz

| SITE DETAILS

Site	Sector	Feeder	Operator
900356	NA	NA	T BELL

| TEST PARAMETERS

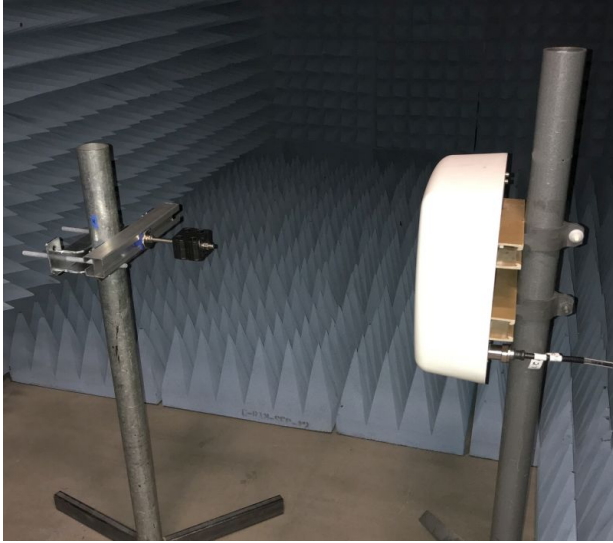
Tone 1 Frequency	Tone 2 Frequency	IM3 Frequency
1930.0 MHz	1990.0 MHz	1870.0 MHz

| TEST RESULTS

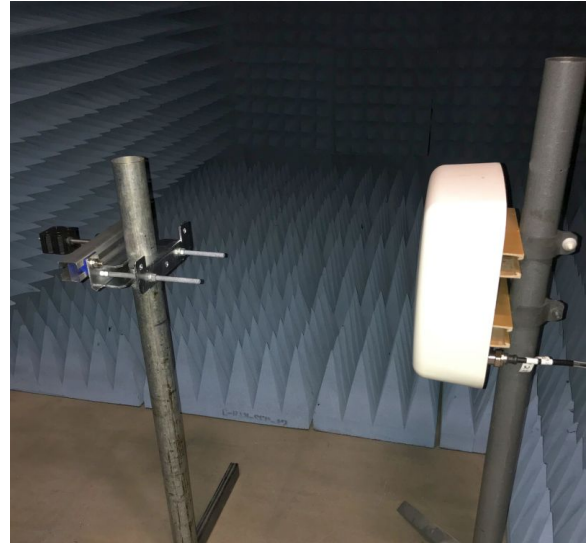
Test Point	Time	P1 P2	PIM Threshold	PIM	Peak PIM	Result
1900 RES P45	2019-02-02 18:21	43.0 dBm 43.0 dBm	-100.0 dBm	-123.3 dBm	-121.9 dBm	Pass
1900 FRONT P45	2019-02-02 18:33	43.0 dBm 43.0 dBm	-100.0 dBm	-126.3 dBm	-123.2 dBm	Pass
1900 R SIDE P45	2019-02-02 18:35	43.0 dBm 43.0 dBm	-100.0 dBm	-122.0 dBm	-121.7 dBm	Pass
1900 L SIDE P45	2019-02-02 18:36	43.0 dBm 43.0 dBm	-100.0 dBm	-125.4 dBm	-123.7 dBm	Pass
1900 BACK P45	2019-02-02 18:37	43.0 dBm 43.0 dBm	-100.0 dBm	-124.4 dBm	-123.1 dBm	Pass
1900 RES M45	2019-02-02 18:59	43.0 dBm 43.0 dBm	-100.0 dBm	-112.2 dBm	-112.0 dBm	Pass
1900 FRONT M45	2019-02-02 19:01	43.0 dBm 43.0 dBm	-100.0 dBm	-111.9 dBm	-111.4 dBm	Pass
1900 R SIDE M45	2019-02-02 19:02	43.0 dBm 43.0 dBm	-100.0 dBm	-112.1 dBm	-111.6 dBm	Pass
1900 L SIDE M45	2019-02-02 19:03	43.0 dBm 43.0 dBm	-100.0 dBm	-111.8 dBm	-111.4 dBm	Pass
1900 BACK M45	2019-02-02 19:04	43.0 dBm 43.0 dBm	-100.0 dBm	-111.6 dBm	-111.4 dBm	Pass

Model	Serial Number	Calibration Due	SW/FW Versions
iQA-1921B	TX2112700053	24 May 2019	2.10.0/2.2.0

Test set-up photos 700 MHz:



FRONT



BACK



RIGHT SIDE

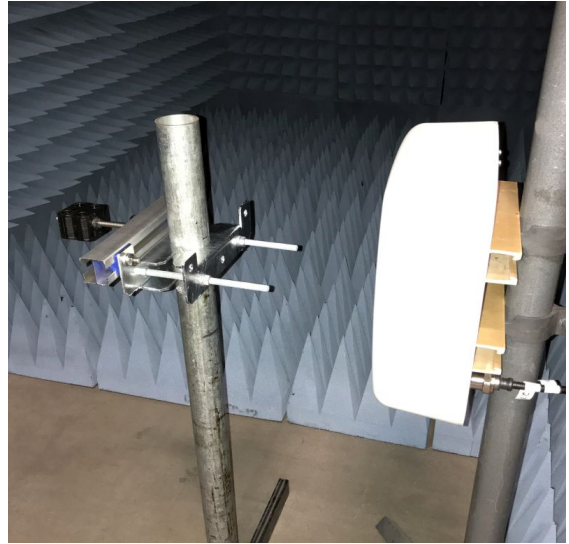


LEFT SIDE

Test set-up photos 1900 MHz:



FRONT



BACK



RIGHT SIDE



LEFT SIDE