

Antenna List - IM11 RFID Reader - MN: IM11

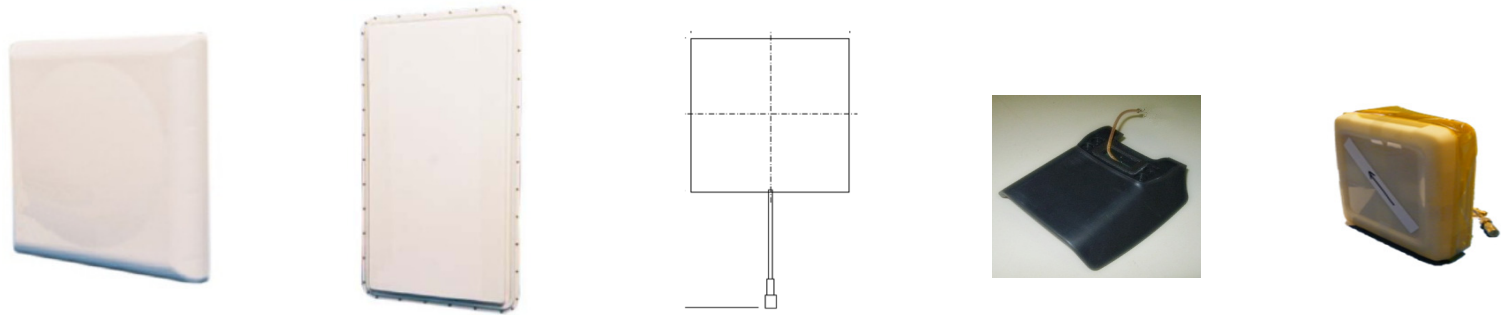
A	B	C	D	E	F	G	H
	T E S T E D	Intermec P/N	Intermec MN, Supplier PN	Description	Gain	Cable Loss	Antenna/cable system gain
	(T)				(dBi)*	(dB)	(dBi)
							F - G = H
1	T	-	- , Huber Suhner 1309.17.0085-X	Panel, Linear	8.0	2.4	5.6
2	T	-	- , Huber Suhner 1309-56-0001-X	Panel RCP	8.0	2.4	5.6
3	T	805-606-002	Radiall, ROS-915	Patch RCP	-0.5	0	-0.5
4	T	-	- , Intermec	Yagi, Linear	5.2	0	5.2
5	T	-	- , Intermec	Dual pole 4 x 4 in, Linear	5.0	0	5.0
6		-	- , Intermec	Dual pole 3 x 3 in, Linear	2.5	0	2.5
7		805-609-001	IA33A, Cushcraft SP9028PC156RSM	Patch CP	4.0	0	4.0
8		805-622-002	IA39A, Kathrein 25-178	Patch CP	6.5	2.4	4.1
9		805-623-002	IA39D, Kathrein 25-278	Patch CP	5.0	2.4	2.6
10		805-626-001	IA36B, Kathrein 25-578	Patch LCP	6.0	2.4	3.6
11		805-629-001	IA33C, Mobile Mark PN10-915RCPI	Patch CP	7.0	2.4	4.6
12		805-654-001	IA33G, Huber Suhner 84024995	Panel RCP	5.5	2.4	3.1
13		805-654-002	IA34A, Huber Suhner 84024996	Panel LCP	5.5	2.4	3.1
14		805-655-001	IA33H, Huber Suhner 84024999	Panel RCP	7.0	2.4	4.6
15		805-655-002	IA34B, Huber Suhner 84025000	Panel LCP	7.0	2.4	4.6
16		805-816-002	IA33E, Cushcraft S9026XR1RRN	Patch CP	3.0	2.4	0.6
17		-	- , Huber Suhner 1309-57-0087-X	Panel RCP	7.0	2.4	4.6
18		-	- , Mobile Mark PN7-915I-FL	Panel RCP	4.0	2.4	1.6
19		-	- , Mobile Mark EDN 191-1550	Panel RCP	4.0	2.4	1.6
20		-	- , Kathrein 520 10087	Panel RCP	7.5	2.4	5.1
21		-	- , Kathrein 520 10073	Panel RCP	5.2	2.4	2.8
22	T	-	- , Kathrein 520 10092	Patch CP	-30.0	2.4	-32.4
23	T	-	- , Intermec	PIFA, Omni	-1.0	0	-1.0
24		-	- , Huber Suhner 1309.17.0089-X	Panel RCP	4.5	2.4	2.1
25	T	-	- , NeWave Wave-N7	7ft. Multi-Axis Dipole	5.5	2.4	3.1
26		-	- , NeWave Wave-N5	5ft. Multi-Axis Dipole	4.5	2.4	2.1
27		-	- , NeWave Wave-N3	3ft. Multi-Axis Dipole	3.0	2.4	0.6
28		-	- , Mobile Mark BP6-915RCPI	Panel RCP	2.5	2.4	0.1
29		-	- , Laird S9025P	Panel RCP	2.5	2.4	0.1

-X = blank or A, B, C.... pricing code

* CP gain dBiC = dBi + 3

CP	circular polarized
RCP	right hand circular polarized antenna
LCP	left hand circular polarized antenna

Antennas
IM11
RFID Reader
Model IM11



TESTED

TESTED

TESTED

TESTED

TESTED

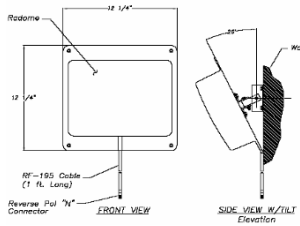
	TESTED	TESTED	TESTED	TESTED	TESTED
Intermec Part Number	N/A see Product Links	N/A see Product Links	805-606-002	N/A	N/A
Proposed Intermec M/N	N/A	N/A	N/A	N/A	N/A
Description	915, 8 dBi, linear, N	915, 11 dBic, RHCP, N (RP)	915, 2.5 dBic, RHCP patch	Yagi, 915 MHz linear	dual pole linear
Frequency Range	902-928 MHz	902-928 MHz	902 - 928 MHz	902 - 928 MHz	902 - 928 MHz
Ant.-cable System Gain	5.6 dBi	4.6 dBi	-0.5 dBi	5.2 dBi	5 dBi
Gain	8 dBi linear	8 dBi linear	-0.5 dBi	5.2 dBi linear	5 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	max. 1.7:1	max. 1.5	< 1.0:1	1.5:1	1.5:1
Axial Ratio		3 dB	0 dB	3 dB	1 dB
Polarization	Linear	Circular, RH	Circular, RH	linear	linear
Front-to-Back Ratio	Max -11dB	Max -20 dB	10 dB		
Maximum Input Power	6 Watts	6 Watts	20 Watts	1 Watt	1 Watt
H-Plane Beamwidth		63 degrees (At 3dB)	120 degrees	45 degrees at 3 dB	45 degrees at 3 dB
E-Plane Beamwidth	70 degrees (At 3dB)	30 degrees (At 3dB)	120 degrees	50 degrees at 3 dB	50 degrees at 3 dB
Connector	N Reverse Polarity	TNC Reverse Polarity	MMCX	MMCX	MMCX
Cable Length	N/A	N/A	2.5 inch		
Weight	0.7 kg (1.54lbs.)	2.8 kg (6.17 lbs.)	0.5 kg (1.1 lbs)		
Dimensions	190 x 190 x 30 mm (7.5" x 7.5" x 1.2")	630 x 320 x 40 mm (24.8" x 12.98" x 1.57")	3.1 x 3.1 x 0.25 inches (79 x 79 x 7 mm)	4.25 x 4 inches (118 x 112 mm)	4 x 4 inches (112 x 112 mm)
Shock					
RoHS, WEEE Status	Complies	Complies			
Mounting Hardware		84007206 Mnting Bracket (separate)	N/A	N/A	N/A
Manufacturer	Huber Suhner	Huber Suhner	Radiall	Intermec	Intermec
Manufacturer M/N	1309.17.0085	1309-56-001-x	ROS-915		
Manufacturer P/N	Item No. 84029200	Item No. 84039146			
Product ID	SPA-915/70/8/0/V	SPA-915/63/11/0/RCP			

Antennas
IM11
RFID Reader
Model IM11



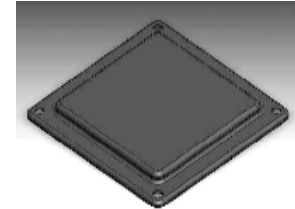
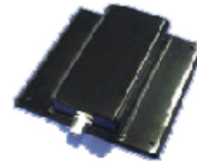
Intermec Part Number	N/A	805-609-001	805-622-002	805-623-002	805-626-001
Proposed Intermec M/N	N/A	IA33A	IA39A	IA39D	IA36B
Description	dual pole linear	IA33A: 915, 7dBi, RHC Pol, SMA (R)	IA39A: 915, 9.5 dBiC, Cir Pol, N (RP)	IA39D: 915, 8 dBiC, Cir Pol, N (RP)	IA36B: 915, 6dBi, Vert Pol, N (RP)
Frequency Range	902 - 928 MHz	902 - 928 MHz	902 - 928 MHz	865-928 MHz	865-928 MHz
Ant.-cable System Gain	2.5 dBi	4 dBi	4.1 dBi	2.6 dBi	3.6 dBi
Gain	2.5 dBi linear	4 dBi linear	6.5 dBi linear	5 dBi linear	6 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	1.5:1	1.5:1	<1.3:1	<1.3:1	<1.5:1
Axial Ratio	1 dB	2 dB	< 3 dB over entire half power beam	3 dB	N/A
Polarization	linear	Circular, RH	Circular, LH	Circular, LH	Patch
Front-to-Back Ratio		18 dB	> 15 dB	> 20 dB	>20 dB
Maximum Input Power	1 Watt	1 Watt	100 Watts (at 50oC)	100 Watts (at 50oC)	100 Watts (at 50oC)
H-Plane Beamwidth	45 degrees at 3 dB	65 degrees at 3 dB	80 degrees (half power)	60 degrees (half power)	90 degrees (half power)
E-Plane Beamwidth	50 degrees at 3 dB	65 degrees at 3 dB	30 degrees (half power)	55 degrees (half power)	70 degrees (half power)
Connector	MMCX	SMA Reverse Polarity	N Reverse Polarity	N Reverse Polarity	N Reverse Polarity
Cable Length		156 Inches	N/A	N/A	N/A
Weight		1.25 lbs	5.2 lbs (2.4 kg)	3.8 lb (1.7 kg)	3.3 lb (1.5 kg)
Dimensions	3 x 3 inches (76 x 76 mm)		19.3 x 6.1 x 1.9 inches (490 x 155 x 49 mm)	12.2 x 10.3 x 2.4 inches (310 x 262 x 59 mm)	10.3 x 6.1 x 1.9 inches (262 x 155 x 49 mm)
Shock					
RoHS, WEEE Status					
Mounting Hardware			203-734-001 kit included 203-733-001 kit order seperately 203-735-001 order seperately 203-737-001 order seperately	203-734-001 kit included 203-733-001 kit order seperately 203-735-001 order seperately 203-737-001 order seperately	203-734-001 kit included 203-733-001 kit order seperately 203-735-001 order seperately 203-737-001 order seperately
Manufacturer	Intermec	Cushcraft-Laird	Kathrein	Kathrein	Kathrein
Manufacturer M/N			25-178	25-278	25-578
Manufacturer P/N		SP9028PC156RSM			
Product ID					

Antennas
IM11
RFID Reader
Model IM11



Intermec Part Number	805-629-001	805-654-001	805-654-002	805-655-001	805-655-002
Proposed Intermec M/N	IA33C	IA33G	IA34A	IA33H	IA34B
Description	IA33C: 915, 10 dBic, CP, N (RP)	IA33G, 915, 8.5 dBic, RHCP, N (RP)	IA34A, 915, 8.5 dBic, LHCP, N (RP)	IA33H, 915, 10dBic, RHCP, N (RP)	IA34B, 915, 10dBic, LHCP, N (RP)
Frequency Range	902 - 928 MHz	902-928 MHz	902-928 MHz	902-928 MHz	902-928 MHz
Ant.-cable System Gain	4.6 dBi	3.1 dBi	3.1 dBi	4.6 dBi	4.6 dBi
Gain	7 dBi linear	5.5 dBi linear	5.5 dBi linear	7 dBi linear	7 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	1.5:1	max. 1.5	max. 1.5	max. 1.5	max. 1.5
Axial Ratio		4 dB	4 dB	2.5 dB	2.5 dB
Polarization	Circular, RH	Circular, RH	Circular, LH	Circular, RH	Circular, LH
Front-to-Back Ratio	20 dB	> 20 dB	> 20 dB	Max -20 dB	Max -20 dB
Maximum Input Power	20 Watts	100 Watts (at 50°C)	100 Watts (at 50°C)	6 Watts	6 Watts
H-Plane Beamwidth	56 degrees	63 degrees (At 3dB)	63 degrees (At 3dB)	60 degrees (At 3dB)	60 degrees (At 3dB)
E-Plane Beamwidth	56 degrees	63 degrees (At 3dB)	63 degrees (At 3dB)	45 degrees (At 3dB)	45 degrees (At 3dB)
Connector	N Reverse Polarity	N Reverse Polarity	N Reverse Polarity	N Reverse Polarity	N Reverse Polarity
Cable Length	1 Foot	N/A	N/A	N/A	N/A
Weight	3.0 lbs	1.2 kg (2.65 lbs.)	1.2 kg (2.65 lbs.)	2.0 kg (4.41 lbs.)	2.0 kg (4.41 lbs.)
Dimensions	12.5" x 12.5" x 3.5"	305 x 305 x 25 mm (12.01" x 12.01" x 0.98")	305 x 305 x 25 mm (12.01" x 12.01" x 0.98")	371 x 371 x 40 mm (14.61" x 14.61" x 1.57")	371 x 371 x 40 mm (14.61" x 14.61" x 1.57")
Shock					
RoHS, WEEE Status		Complies	Complies	Complies	Complies
Mounting Hardware	Tilt bracket hardware included	805-653-001 Mnting Bracket (separate)	805-653-001 Mnting Bracket (separate)	805-653-001 Mnting Bracket (separate)	805-653-001 Mnting Bracket (separate)
Manufacturer	Mobile Mark	Huber Suhner	Huber Suhner	Huber Suhner	Huber Suhner
Manufacturer M/N		1309.17.0077		1309.17.0078	
Manufacturer P/N	PN10-915RCPI	Item No. 84024995	Article No. 84024996	Item No. 84024999	Article No. 84025000
Product ID					

Antennas
IM11
RFID Reader
Model IM11



Intermec Part Number	805-816-002	N/A see Product Links	N/A see Product Links	N/A see Product Links	N/A see Product Links
Proposed Intermec M/N	IA33E	N/A	N/A	N/A	N/A
Description	IA33E: 915, 6.0 dBi, Cir Pol, N (RP)	915, 10 dBic, RHCP, N (RP)	915, 7 dBic, RHCP, N (RP)	915, 7 dBic, RHCP, N	915, 10.5 dBic, LHCP, N
Frequency Range	902 – 928 MHz	902-928 MHz	902 - 928 MHz	902 - 928 MHz	902 - 928 MHz
Ant.-cable System Gain	0.6 dBi	4.6 dBi	1.6 dBi	1.6 dBi	5.1 dBi
Gain	3 dBi linear	7 dBi linear	4 dBi linear	4 dBi linear	7.5 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	<1.5:1	max. 1.5	1.5:1	1.5:1	<1.3:1
Axial Ratio	N/A	2.5 dB			
Polarization	Circular, RH	Circular, RH	Circular, RH	Circular, RH	Left Hand Circular
Front-to-Back Ratio	10 dB	Max -20 dB	15 dB	15 dB	> 20 dB
Maximum Input Power	10 Watts	6 Watts	20 Watts	20 Watts	1 Watts
H-Plane Beamwidth	82 degrees (half power)	60 degrees (At 3dB)	75 degrees	75 degrees	
E-Plane Beamwidth	82 degrees (half power)	45 degrees (At 3dB)	75 degrees	75 degrees	30 V, 70 H degrees (half power)
Connector	N Reverse Polarity	N Reverse Polarity	N Reverse Polarity Female	N Reverse Polarity Female	N Reverse Polarity
Cable Length	N/A	N/A	N/A	N/A	N/A
Weight	3.0 lbs (1.4 kg)	2.0 kg (4.41 lbs.)	1.1 lbs	1.5 lbs	3.7 kg (8.16 lbs.)
Dimensions	7.7 in. x 7.7 in. x 1 in. (196 x 196 x 25)	371 x 371 x 40 mm (14.61" x 14.61" x 1.57")	172 x 172 x 50mm (6.75" x 6.75" x 2.0")	210 x 210 x 19mm (8.25" x8.25" x 0.75")	557 x 262 x 59 mm (22"x 10.3"x 2.3")
Shock	50 g, 8ms ½ sine, 5000 impulses				
RoHS, WEEE Status	Complies	Complies			Complies
Mounting Hardware	Adaptable Load Backrest Mounting Included	84007205 Mnting Bracket (separate)	included		
Manufacturer	Cushcraft-Laird	Huber Suhner	Mobile Mark	Mobile Mark	Kathrein
Manufacturer M/N	S9026X	1309-57-0087-x	PN7-915I-FL	EDN 191-1550	520 10087
Manufacturer P/N	S9026XR1RRN	Item No. 84068841	PN7-915I	PN7-915I	521 10087
Product ID		SPA 915/60/10/0/RCP_C1			

Antennas
IM11
RFID Reader
Model IM11



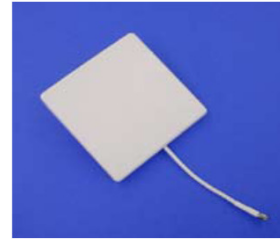
TESTED

TESTED

TESTED

Intermec Part Number	N/A see Product Links	N/A see Product Links	N/A	N/A see Product Links	N/A see Product Links
Proposed Intermec M/N	N/A	N/A	N/A	N/A	N/A
Description	915, 8.2 dBi, LHCP, N	915, -30 dBi, CP, TNC	PIFA, 915 MHz, Omni	915, 7.5 dBi, RHCP, N	915, 5.5 dBi, multi-linear, TNC
Frequency Range	902 - 928 MHz	865 - 928 MHz	902 - 928 MHz	902-928 MHz	902-928 MHz
Ant.-cable System Gain	2.8 dBi	-32.4 dBi	-1 dBi	2.1 dBi	3.1 dBi
Gain	5.2 dBi linear	-30 dBi linear	-1 dBi linear	4.5 dBi linear	5.5 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	<1.2:1	<1.2:1	1.5:0	max. 1.3:1	max. 1.7:1
Axial Ratio			1 dB	1.3 dB	
Polarization	Left Hand Circular		omni	Circular	Multi-axis
Front-to-Back Ratio	> 22 dB		1 dB	Max -17dB	NA
Maximum Input Power	1 Watts		1 Watt	65 Watts	1 Watt
H-Plane Beamwidth			360 degrees		
E-Plane Beamwidth	68 V, 70 H degrees (half power)		360 degrees	70 H, 71 V degrees (At 3dB)	360 degrees
Connector	N Reverse Polarity		udfl	N Reverse Polarity	TNC Reverse Polarity
Cable Length	N/A		N/A	N/A	1.5 m (5 ft)
Weight	1.1 kg (2.43 lbs.)	110 g (0.25 lbs.)	N/A	1 kg (2.2 lbs)	1.8 kg (4 lbs)
Dimensions	243 x 290 x 60 mm (9.6"x 11.4"x 2.4")	90 x 63 x 31 mm	N/A	190 x 190 x 30 mm (7.5" x 7.5" x 1.2")	2.2 m x 229 mm x 38 mm (87" x 9" x 1.5")
Shock					
RoHS, WEEE Status	Complies	Complies	Complies	Complies	
Mounting Hardware			N/A		
Manufacturer	Kathrein	Kathrein	Intermec	Huber Suhner	NeWave Sensor Solutions
Manufacturer M/N	520 10073	520 10092		1309.17.0089	NSS Wave-N7
Manufacturer P/N	521 10073	521 10092		Item No. 84039145	
Product ID				SPA-915/10/8/0/RCP	

**Antennas
IM11
RFID Reader
Model IM11**



Intermec Part Number	N/A see Product Links	N/A see Product Links	N/A see Product Links	N/A see Product Links
Proposed Intermec M/N	N/A	N/A	N/A	N/A
Description	915, 4.5 dBi, multi-linear, TNC	915, 3 dBi, multi-linear, TNC	915, 5.5 dBic, RHCP, N	915, 5.5 dBic, RHCP, N
Frequency Range	902-928 MHz	902-928 MHz	902 - 928 MHz	902 - 928 MHz
Ant.-cable System Gain	2.1 dBi	0.6 dBi	0.1 dBi	0.1 dBi
Gain	4.5 dBi linear	3.0 dBi linear	2.5 dBi linear	2.5 dBi linear
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
VSWR	max. 1.7:1	max. 1.7:1	< 2.0:1	< 1.5:1
Axial Ratio				2.0 dB
Polarization	Multi-axis	Multi-axis	Circular, RH	Circular, RH
Front-to-Back Ratio	NA	NA	10 dB	8 dB
Maximum Input Power	1 Watt	1 Watt	20 Watts	10 Watts
H-Plane Beamwidth				
E-Plane Beamwidth	360 degrees	360 degrees	80 V, 80 H degrees	100 degrees
Connector	TNC Reverse Polarity	TNC Reverse Polarity	N Reverse Polarity Female	TNC Reverse Polarity Female
Cable Length	1.5 m (5 ft)	1.5 m (5 ft)	6 inch	
Weight	1.4 kg (3 lbs)	0.8 kg (1.7 lbs)	0.5 kg (1.1 lbs)	0.37 kg (0.8 lbs)
Dimensions	1.55 m x 229 mm x 38 mm (61" x 9" x 1.5")	915 x 229 x 38 mm (36" x 9" x 1.5")	146 mm x 146 mm x 18 mm (5.75" x 5.75" x 0.7")	132 mm x 132 mm x 18 mm (5.2" x 5.2" x 0.7")
Shock				IEC 68-2-27
RoHS, WEEE Status				
Mounting Hardware				
Manufacturer	NeWave Sensor Solutions	NeWave Sensor Solutions	Mobile Mark	Laird
Manufacturer M/N	NSS Wave-N5	NSS Wave-N3	BP6-915	S9025P
Manufacturer P/N			BP6-915RCP	S9025PR
Product ID				