



Hands-free, Wide Area, Always On, Continuous Scanning

CS Smart Antenna Technology is the source of RTLS data which is filtered and customized from the RFC Operating System. It is an essential component to delivering hands-free, continuous, 3D location of RAIN RFID (Passive UHF) tags. Both the CS-445B and the larger CS-490 have long read-range capabilities and flexible mounting options suited for high-ceilings and wide areas.



IDENTIFY



LOCATE



TRACK



High Ceiling, Fixed Infrastructure Tracks Everything Using Cost Effective RAIN RFID Tags

CS-445B

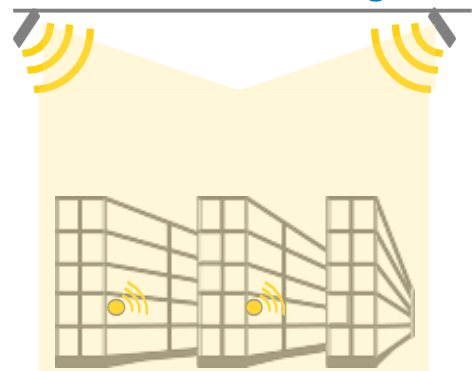
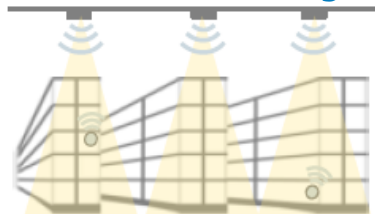


CS-490



50 Feet Ceiling

30 Feet Ceiling



Impressive Performance

Tag Read Distance (ft)
Mounting Height (ft)
Tag Read Period (ms)
Location Accuracy (ft)
Data & Power Source

CS-445B

45
10 – 30
8
1.0 – 1.5
PoE

CS-490

90
25 – 50
8
1.5 – 3.0
PoE+

Passive RTLS CS Smart Antenna



Series

CS-445B

CS-490

	Min	Max	Units	Min	Max	Units	
Performance	Tag Read Period ¹	-	8	ms	-	8	ms
	Tag Location Accuracy	1.0 (0.31)	1.5 (0.46)	ft (m)	1.5 (0.46)	3 (0.91)	ft (m)
	Scan Angle – Horizontal	-45	45	Degrees	-45	45	Degrees
	Scan Angle – Vertical	-45	45	Degrees	-45	45	Degrees
	Power Level ²	0.2	4	W-EIRP	0.2	4	W-EIRP
	Radiated Power (FCC/IC)	-	+36	dBm (4W) EIRP	+24 (0.25)	+36 (4)	dBm (4W) EIRP
	Radiated Power (ETSI Upper) ³	+24 (0.25)	+36	dBm (4W) ERP	+24 (0.25)	+36 (4)	dBm (4W) ERP
Radiated Power (ETSI Lower) ³	+24 (0.25)	+33	dBm (2W) EIRP	+24 (0.25)	33 (2)	dBm (2) ERP	
Power	PoE IEEE 802.3 Type1 Voltage	37	57			VDC	
	PoE IEEE 802.3 Type 1 Current	-	305	-		mA	
	PoE+ IEEE 802.3 Type2 Voltage	-	-	42	57	VDC	
	PoE+ IEEE 802.3 Type2 Current	-	-		600	mA	
Operating	Operating Environment	-	Indoor	-	Indoor	-	
	Humidity Range	5	95	5	95	%RH	
	Operating Temp Range ⁴	-20 (-4)	45 (113)	-30 (-22)	45 (113)	°C (°F)	
	Non-Op Temp Range	-40 (-40)	85 (185)	-40 (-40)	85 (185)	°C (°F)	
	Cold Start Installation Temp	-10 (-14)	-	-10 (-14)	-	°C (°F)	
Mechanical	Length	23.75 in (60 cm)			23.75 in (60 cm)		
	Width	23.75 in (60 cm)			46 in (115 cm)		
	Depth	4 in (10 cm)			4 in (10 cm)		
	Weight	15 lbs (6.8 kg)			26 lbs (12 kg)		
Installation	All-In-One Integrated	CS-4B BESPAs RFID Reader			CS-490 BESPAs RFID Reader		
		Adjustable Mounting Kit ⁵			Adjustable Mounting Kit ⁵		
	Data & Power Connector	RJ45 10/100 Ethernet RJ45 PoE IEEE 802.3af/at Type 1 Class 3			RJ45 100 Ethernet RJ45 PoE IEEE 802.3at Type 2 Class 4		
	-			-			

Regulatory Certifications

FCC CFR47 Part 15.247 at RFID reader and system level Subpart B EMC, ETSI 302-208, EN 301 489-1, EN 301 489-3, CE EN55024, EN55032, EN55035

¹ Time to read one tag, given a Q of 0 (tag population of 1). System is turned on and enabled

² Calibrated power level settable in firmware

³ ETSI-Lower Band 865-868MHz ETSI-Upper Band 915-921MHz where allowed

⁴ Unit operating temperature range does not indicate compliance with local safety standards

⁵ CS antennas must be fixed and not allowed to move after installation

