Passive RTLS

CS Smart Antennas

RF CONTROLS
IDENTIFY • LOCATE • TRACK™

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 and encoding 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.

BEST NEW PRODUCT • RFID JOURNAL AWARDS • 2019 WINNER

IDENTIFY

LOCATE

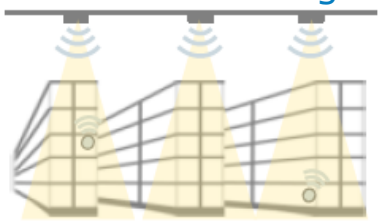
TRACK

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

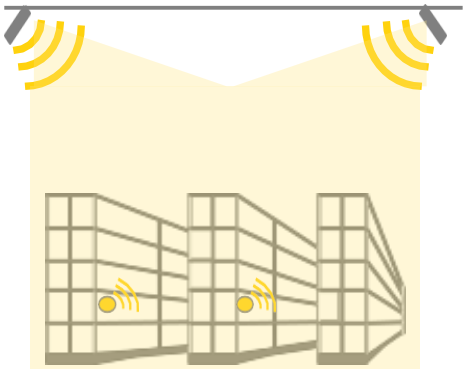
CS-445B

CS-490

30 Feet Ceiling



50 Feet Ceiling



Impressive Performance

	CS-445B	CS-490
Tag Read Distance (ft)	45	90
Mounting Height (ft)	10 – 30	25 – 50
Tag Read Period (ms)	8	8
Location Accuracy (ft)	1.0 – 1.5	1.5 – 3.0
Data & Power Source	PoE	PoE+

RAIN RFID

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	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			VDC
	PoE IEEE 802.3 Type 1 Current	-	305	mA	-		mA
	PoE+ IEEE 802.3 Type2 Voltage	-	-	VDC	42	57	VDC
	PoE+ IEEE 802.3 Type2 Current	-	-	mA		600	mA
Operating	Operating Environment	-	Indoor	-	-	Indoor	-
	Humidity Range	5	95	%RH	5	95	%RH
	Operating Temp Range [4]	-20 (-4)	45 (113)	°C (°F)	-30 (-22)	45 (113)	°C (°F)
	Non-Op Temp Range	-40 (-40)	85 (185)	°C (°F)	-40 (-40)	85 (185)	°C (°F)
	Cold Start Installation Temp	-10 (-14)	-	°C (°F)	-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-445B BESPA RFID Reader			CS-490 BESPA 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