


FX9500/FX9600 Technical Accessory Guide

NOTE: FX9500 discontinued 11/2017 - see PMB 3037

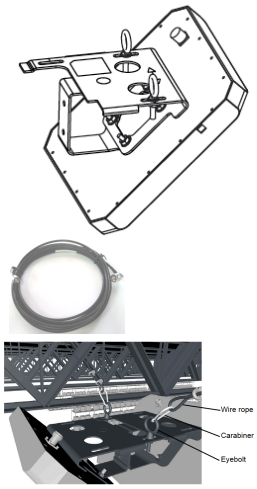
NOTE: This document is only for general reference. Solution Builder and related PMBs should be used for product availability, pricing, and final solution selection.

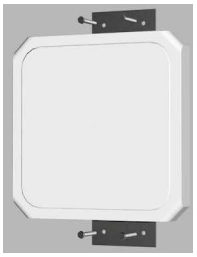
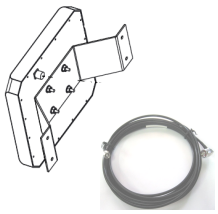
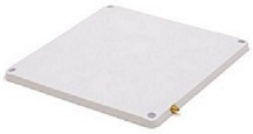
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Communication Cables

Part Number	Picture	Description	Notes	Required Items
25-64396-01R		USB Cable		

Antennas

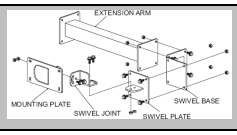
Part Number	Picture	Description	Notes	Required Items
SR5502-SR01000SSNA (US frequency) SR5502-SR01000SSEU (European-ETSI frequency)		Overhead/Ceiling Mount Star Antenna kit - dual antennas	▸Designed to optimize tag reads as they move from aisle to aisle, room to room. ▸Antennas are designed to be overhead/ceiling mounted. ▸Includes two optimally angled antennas, two carabiners (for hanging antennas) and two 17 ft. / ~5 m. cables for connection to FX reader. ▸Antennas are left hand circular polarized,, gain-max 9 dBic, gain linear max 6 dBil	
SR5500-SR01000SSNA (US frequency) SR5500-SR01000SSEU (European-ETSI frequency)		Overhead/Ceiling Mount Star Antenna kit - single antenna	▸Designed to optimize tag reads as they move from aisle to aisle, room to room. ▸Antenna is designed to be overhead/ceiling mounted. ▸Includes one optimally angled antenna, two carabiners (for hanging antenna) and one 17 ft. / ~5 m. cable for connection to FX reader. ▸Antenna is left hand circular polarized,, gain-max 9 dBic, gain linear max 6 dBil	

SR5200-SR01000SSNA (US frequency) SR5200-SR01000SSEU (European-ETSI frequency)	 	Wall Mount Star Antenna kit - single antenna	▸Designed to optimize tag reads as they move from aisle to aisle, room to room. ▸Antenna is designed to be wall mounted. ▸Includes one antenna, antenna mounting bracket and one 17 ft. / ~5 m. cable for connection to FX reader. ▸Antenna is left hand circular polarized,, gain-max 9 dBic, gain linear max 6 dBil	
SP5504-SR01000SSNA (US frequency) SP5504-SR01000SSEU (European-ETSI frequency)		Localized (POS) Antenna kit	▸Designed to track items through Point of Sale (POS) or other small footprint areas. ▸Highly localized RFID antenna solution covers area approximately 2 ft. x 2ft. ▸Antenna is designed to be overhead/ceiling mount suspended. ▸Includes antenna, 20 ft. cable for connection to FX reader, and hang wire for suspending antenna. ▸Antenna is left hand circular polarized, gain-max 7.3 dBic, gain linear max 4.9 dBil ▸Antenna can be suspended from ceiling using included hang wire or optional Mounting Pole (HN-001187-01 or HN-000537-01) can be used. ▸Dimensions: 7 in. height x 7.3 in. diameter ▸Weight: 2.2 lbs.	
AN510-CFCL60001US (US frequency) AN510-CFCL60002EU (European-ETSI frequency)		AN510 Ultra-Low Profile Indoor/Outdoor Antenna (Flush Mount)	▸IP67 rating allows antenna to be used in a wide range of indoor and outdoor environments ▸Dimensions: 9.8 in. L x 9.8 in. W x 0.55 in. D (250 mm x 250 mm x 14 mm) ▸Weight: 1.6 lbs. ▸~ 8.5 dB gain ▸68° vertical and 68° horizontal beam width. ▸Flush mounting can be accommodated by attaching via screws or bolts through the corner holes in the housing. ▸Requires IP67 Rated Pigtail cable which then allows use of Zebra's standard antenna cables. ▸Polarization: RHCP ▸Includes IP67 Rated Pigtail Cable (CBLRD-7B8020140R)	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader

AN510-CSCL60003US (US frequency) AN510-CSCL60004EU (European-ETSI frequency)		AN510 Ultra-Low Profile Indoor/Outdoor Antenna (VESA/Studded Mount)	▸IP67 rating allows antenna to be used in a wide range of indoor and outdoor environments ▸Dimensions: 9.8 in. L x 9.8 in. W x 0.55 in. D (250 mm x 250 mm x 14 mm) ▸Weight: 1.6 lbs. ▸~ 8.5 dB gain ▸68° vertical and 68° horizontal beam width. ▸Includes 4 Studded mounts in 100mm VESA pattern allowing antenna to be mounted using common brackets. ▸Requires IP67 Rated Pigtail cable which then allows use of Zebra's standard antenna cables. ▸Polarization: RHCP ▸Includes IP67 Rated Pigtail Cable (CBLRD-7B8020140R)	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader
AN610-SCL71129US (US frequency) AN610-SCL71128EU (European-ETSI frequency)	 	AN610 Slim General Purpose Indoor Antenna	▸Designed for carpeted space and customer-facing environments (i.e. under POS counter) ▸Dimensions: 10.8 in. L x 8.5 in. W x 0.3 in. D ▸Weight: 1.1 lbs. ▸~ 3 dB gain ▸60° vertical and 80° horizontal beam width. ▸Has integrated mounting holes within ABS plastic frame and includes 1 ft pigtail cable ▸Uses Zebra's standard antenna cables ▸Polarization: LHCP ▸Rev C version of antenna (top picture) has a thinner profile by removing the gray border/frame that surrounds the antenna on Rev A and B versions (bottom picture) - see PMB 3121.	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader
AN620-SCL71131US (US frequency) AN620-SCL71130EU (European-ETSI frequency)		AN620 Slim General Purpose Indoor Antenna	▸Designed for carpeted space and customer-facing environments (i.e. under POS counter) ▸Dimensions: 15.4 in. L x 10.8 in. W x 0.47 in. D ▸Weight: 2.2 lbs. ▸~ 3 dB gain ▸48° vertical and 75° horizontal beam width. ▸Has integrated mounting holes within ABS plastic frame and includes 1 ft pigtail cable ▸Uses Zebra's standard antenna cables ▸Polarization: LHCP	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader
AN720-L51NF00WUS (US frequency) - AN720-L51NF00WEU (European-ETSI frequency)		AN720 Compact Rugged Indoor-Outdoor Antenna	▸Designed to withstand exposure to rain, snow and extreme temperature - ideal for the receiving dock doors or outdoor shopping areas ▸Dimensions: 5.2 in. L x 5.2 in. W x 0.7 in. D ▸Weight: 0.8 lbs. ▸IP67 rated ▸~ 3 dB gain ▸100° beam width - for even wider coverage ▸Comes complete with an articulating mount ▸Uses Zebra's standard antenna cables ▸Polarization: LHCP	One RF Antenna Cable (CBLRD-1B400…)

AN710-L61NF00WUS (US frequency) - AN710-L61NF00WEU (European-ETSI frequency)		AN710 Compact General Purpose Indoor Antenna	▸AN710 discontinued 9/2019, now use AN720 - see PMB 10137. ▸Designed for carpeted space and customer-facing environments (i.e. under POS counter) ▸Dimensions: 5.75 in. L x 5.75 in. W x 0.69 in. D ▸Weight: 1.1 lbs. ▸~ 3 dB gain ▸80° beam width - ideal for most applications ▸Complete with an attached articulating mount and 2 ft pigtail cable ▸Uses Zebra's standard antenna cables ▸Polarization: LHCP	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader
ANT-71721-01 (Left circular polarization) - ANT-71720-01 (Right circular polarization)		AN200 General Purpose Indoor-Outdoor Antenna	▸Discontinued 10/2014, now use AN440 for indoor usage or AN480 for outdoor usage. ▸General-purpose indoor/outdoor antenna can be used in a wide range of areas for versatile and reliable application coverage. ▸Its rugged design withstands a range of environmental conditions from extreme heat and cold to moisture and vibration, making this antenna ideal for nearly any application. ▸Dimensions: 11.1 in. L x 11.1 in. W x 1.9 in. D ▸Weight: 3 lbs. ▸Polarization: LHCP or RHCP	One RF Antenna Cable (CBLRD-1B400…)
AN480-CL66100WR (Left circular polarization) - AN480-CR66100WR (Right circular polarization)		AN480 High-Performance Worldwide Indoor Antenna	▸This single port indoor antenna offers the maximum flexibility and performance required to meet the needs of enterprises around the world. ▸Dimensions: 10.2 in. L x 10.2 in. W x 1.98 in. D ▸Weight: 3 lbs. ▸Polarization: LHCP or RHCP	One RF Antenna Cable (CBLRD-1B400…) OR N Female to Reverse-Polarity TNC Male Adapter for connecting directly to FX reader
AN440-CPDFQ915WR		AN440 High Performance Area Antenna	▸Dimensions: 28.3 in. L x 12.5 in. W x 1.5 in. D ▸Weight: 8 lbs. ▸Polarization: Two circular polarized patch array	Two RF Antenna Cables (CBLRD-1B400…)

AN400-CB66203WR		AN400 High Performance Area Antenna	▸Discontinued 10/2014, now use AN440-CPDFQ915WR ▸Dimensions: 28.3 in. L x 12.5 in. W x 1.5 in. D ▸Weight: 8 lbs. ▸Polarization: Two circular polarized patch array	Two RF Antenna Cables (CBLRD-1B400…)
Jamison RFID Portal antennas (3rd party) * http://jamisondoor.com/product-families/rfid-portals/		Portal Antennas		
Antenna Accessories				
(3rd party) *		N Female to Reverse-Polarity TNC Male Adapter	▸Allows antennas with pigtail cable to be directly connected to FX reader ▸Allows for compact installations where the reader and antenna will be mounted close to each other (i.e. under counter installations)	
http://www.amazon.com/gp/product/B00IE7PAEW?keywords=reverse%20tnc%20end%20connector&qid=1445460516&ref_=sr_1_1&sr=8-1				
CBLRD-7B8020140R		Spare RF Pigtail Antenna Cable (14" long)	▸This is a spare cable that connects AN510 Indoor/Outdoor antennas to standard Zebra RFID cables. ▸Normally included with each AN510 antenna. ▸Cable is IP67 rated.	

CBLRD-1B4000680R		RF Antenna Cable (68"/~5.5 ft. long)	‣Cable connects RFID antenna to reader. ‣Type LMR240 cable	
CBLRD-1B4001800R		RF Antenna Cable (180"/15 ft. long)	‣Cable connects RFID antenna to reader. ‣Type LMR240 cable	
CBLRD-1B4002400R		RF Antenna Cable (240"/20 ft. long)	‣Cable connects RFID antenna to reader. ‣Type LMR240 cable	
CBLRD-1B4002400F		RF Antenna Cable (240"/20 ft. long) Flame Retardant	‣Discontinued 2/2019 - see PMB 10043 ‣Cable connects RFID antenna to reader. ‣Type LMR240 cable	
CBLRD-1B4003600R		RF Antenna Cable (360"/30 ft. long)	‣Cable connects RFID antenna to reader. ‣Type LMR240 cable	
BRKT-70661-01R		Standard RFID Antenna Mounting Kit.		
BRKT-70662-01R		Heavy Duty RFID Antenna Mounting Kit	‣Has 16" extension arm	
BRKT-70665-01R		Industrial RFID Antenna Mounting Kit	‣Discontinued 10/2014 ‣Has 24" extension arm	

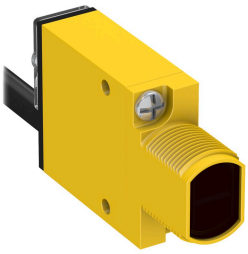
HN-001187-01		Standard Length Mounting Pole for POS Antenna	‣Designed to allow POS Antenna (SP5504) to be suspended from ceilings ‣Pole is 6 ft. long and is intended to be used for ceilings that are 14 ft. or under in height.	
HN-000537-01		Extended Length Mounting Pole for POS Antenna	‣Designed to allow POS Antenna (SP5504) to be suspended from ceilings ‣Intended to be used for ceilings that are more than 14 ft. in height. ‣Includes two 6 ft. long poles which can be nested together to form varying lengths of +6 ft to under 12 ft. (one pole is the HN-001187-01 Standard Length Mounting Pole)	

Misc

Part Number	Picture	Description	Notes	Required Items
various (3rd party) * TP-Link: AC 1200 - Realtek RTL8812AU ASUS: USB-AC56 - Realtek RTL8812AU ALFA Network: AWUS036AC - Realtek RTL8812AU ALFA Network: AWUS036H - Realtek RTL8187L CCrane: Versa Wifi USB Adapter II - Realtek RTL8187L		USB WiFi Adapter for FX9600	‣FX9600 navtively supports USB WiFi adapters with the Realtek chipset RTL 8187 or RTL 8812AU. ‣Adapters listed have been tested by Zebra	

various (3rd party) * various: Bluetooth 4.0 dongle - Qualcomm CSR8510 various: Bluetooth 3.0 dongle - Ralink RT5370L Asus: Mini Bluetooth 2.1 Dongle USB-BT211 MediaLink: Bluetooth 4.0 Dongle MUA-BA3		USB Bluetooth Adapter for FX9600	‣FX9600 navtively supports certain Bluetooth adapters. ‣Adapters listed have been tested by Zebra	

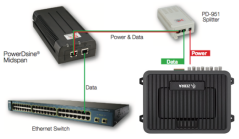
GPIO devices

Part Number	Picture	Description	Notes	Required Items
SM312D (3rd party) * http://www.bannerengineering.com/		Photo Eye		
PREF-301-RYG (3rd party) * http://eng.menics.co.kr/		Light Stack		

Power Cords/Power Supplies

NOTE: FX9600 supports either 24V Power Supply, 802.3af (PoE) or 802.3af (PoE+). PoE/PoE+ will only power the FX9600, not any auxillary GPIO devices (i.e. alarms, light stacks, motion sensors, etc.) attached to it.

Part Number	Picture	Description	Notes	Required Items
PWR-BGA24V78W1WW		Power Supply for FX7400/FX7500/FX9500 and FX9600	‣Has increased operating temperature range vs. PWR-BGA24V78W0WW - 20C to +55C. This matches the operating temperature spec of the FX9600. ‣24V, 3.25A, 78W ‣Provides US DOE Level VI compliance for power efficiency.	23844-00-00R

PWR-BGA24V78W0WW		Power Supply for FX7400/FX7500 and FX9500	▸Discontinued 2/2019, now use PWR-BGA24V78W1WW - see PMB 10043. ▸24V, 3.25A, 78W ▸Provides US DOE Level VI compliance for power efficiency.	23844-00-00R
PWRS-14000-260R		Power Supply for FX7400/FX7500 and FX9500	▸90-264VAC,24VDC, 3.25A ▸Energy Efficiency Level V and IEC 60950-1 2nd Edition compliant. ▸Discontinued 3/2017, now use PWR-BGA24V78W0WW - PMB 2903.	50-16000-221R
50-14000-159R		Power Supply for FX7400/FX7500 and FX9500	▸Discontinued 8/2013 - replaced by PWRS-14000-259R ▸90-264VAC,24VDC,3.0A ▸For US and all non-EU customers	50-16000-221R
50-14000-260R		Power Supply for FX7400/FX7500 and FX9500	▸Discontinued 9/2011 - replaced by PWRS-14000-260R ▸90-264VAC,24VDC,3.0A ▸For all EU and ZA South Africa customers	50-16000-221R
ZE2435-4932 (3rd party) * https://lindelectronics.com/		Vehicle Power Supply for FX7400/FX7500/FX9500 and FX9600 - Cigarette Lighter adapter	▸Allows FX reader to be powered from a 12V vehicle cigarette lighter adapter.	
ZE2435I-4946 (3rd party) * https://lindelectronics.com/		Vehicle Power Supply for FX7400/FX7500/FX9500 and FX9600 - bare wire connector	▸Allows FX reader to be powered from a vehicle. ▸Isolated adapter is rated for 20-60V input.	
PD-AS-951/12-24 (PoE Splitter) (3rd party) * https://www.microsemi.com	 	24V PoE Power Supply solution for FX9600	▸Used to power FX9600 via Power over Ethernet (PoE) at full 24V power. Not supported by FX9500. ▸PoE will power FX9600 AND additional auxillary devices via the GPIO port (i.e. alarms, light stacks, motion sensors, etc.). ▸Requires two components: 1. Midspan/Power Injector that will provide power on Ethernet switch end. Exact model of Midspan is customer/installation specific. 2. PoE Splitter that will separate data from power on FX9600 end and connect to barrel jack power connector and Ethernet port on FX9600.	Will require DC Line cord (barrel jack connector) to connect PoE Splitter to FX9600

POE29U-1AT(PL)D-R		Single-port High Power Gigabit 802.3at Power Injector	▸Used to power FX9600 via PoE ▸30W Single Port Power over Ethernet Midspan IEEE 802.3at Compliant Power Injector.	AC Line Cord (23844-00-00R)
AP-PSBIAS-2P3-ATR		Single-port High Power Gigabit 802.3at Power Injector	▸Used to power FX9600 via PoE, not supported by FX9500. ▸NOTE: PoE will only power the FX9600, not any auxillary GPIO devices (i.e. alarms, light stacks, motion sensors, etc.) attached to it. ▸Discontinued 10/2016 due to sale of Zebra's WLAN business to Extreme Networks. Now source third party POE injector.	AC Line Cord (23844-00-00R)
AP-PSBIAS-1P3-AFR		Single-port High Power Gigabit 802.3at Draft Power Injector	▸Discontinued 9/2013 - now use AP-PSBIAS-2P3-ATR - PMB 2292 ▸Used to power FX9600 via PoE, not supported by FX9500. ▸NOTE: PoE will only power the FX9600, not any auxilliary GPIO devices (i.e. alarms, light stacks, motion sensors, etc.) attached to it.	AC Line Cord (23844-00-00R)
50-16000-221R		AC Line Cord	▸Used to power Direct Connect power supplies (i.e. PWRS-14000-260R)	
23844-00-00R		AC Line Cord	▸Used to power Direct Connect power supplies (i.e. PWR-BGA24V78W1WW) and 802.3at Power Injector	