



dbSpectra RF Distribution System Design and Installation



Presented To

William Silliman

Chief Information Officer

Village of Wellington
12300 Forest Hill Blvd
Florida, 33414

Presented By

Brennan Wartmann, Regional Sales Manager
Mobile: (561) 951-7140
brennanw@radio1inc.com

April 1st, 2024



Service Description

Radio One is pleased to offer the following proposal for the design and installation of a new, state-of-the-art RF distribution system for the Village of Wellington UHF radio system.

Service Shall Include:

System design and Installation of new dbSpectra components.

DB4368-Series (350-512 MHz) 4 Channel High Performance UHF Combiner

- Connects 4 radio transmitters to a single transmit antenna.

DB4368PIM DIN Connector and PIM Kit

- The factory-installed combiner PIM Kit is a special DIN output junction that seals the cavity jumper "mate once" N-type connectors and converts the combiner output to a 7/16 DIN female connector that can be safely mated for site antenna connections by field installation personnel.
- This kit provides protection from Intermodulation mixing in the combiner.

DB3826BP UHF Dual Sub-band Receive Window Filter

- High performance dual sub-band filter system for two separated UHF receive passbands; Very selective; provides >65 dB of isolation at 1.5 MHz from edge of passband.

DSRMC0608BAN Receiver Multicoupler

- Best RF Practices Receiver Multicoupler connects multiple radio receivers to a single receive antenna.

DBMOFR-43UM 83 in. 43 RU Four-Post Aluminum Rack w/Ground Bar

DS4C06F36U-D 450-482 MHz, 6 dBd, Omni, DIN(F) Antennas

Tower Installation

- Demolition of (3) existing VOW TX antennas
- Installation of (1) TX Antennas, SA brackets with tieback and 7/8" coaxial on Tower at same elevation as existing VOW antennas. Installation of Hoist Grips Ground kits, etc. Sweep test system and provide results for performance.
- Installation of (1) RX Antennas, SA bracket with tieback and 7/8" coaxial at top of Tower. Installation of Hoist Grips, Ground kits, etc. Sweep test system and provide results for performance.
- Annual Tower Inspection per Broward County Contract (Contract No. R2111727A1_1, with KIRMS COMMUNICATIONS, for Radio Tower Maintenance). Kirms will provide SA on Tower with results. Pricing Includes climbing and mapping. Kirms will use Kimley Horn results as reference.
- SA will determine if installation is acceptable without Tower Modification. Any required Tower Modifications would be additional labor and cost. Placement of Antenna's would need to be approved by Structural Engineer in Structural Analysis.

Tower Repairs

- Labor to remove (6) Antennas and cabling from Tower.



- Labor for Repairs as indicated in Kimley Horn report, Kirms is only quoting repairs specifically listed. Kirms is not responsible for completing any repairs not listed in the report, and pricing is reflective of that. If Kirms finds any deficiencies, not noted in report, during repair and antenna/line installation, they will notify Village of Wellington and offer services as a change order.
- Rust Treatment at 7-8 flange, 8-9 flange, 9-10 flange, 11-12 flange, 12-13 flange. The process involves wire brushing away all rust and adding (2) coats of brush on ZRC paint.
- Install additional clamp on guy cable safety wires, replace bent step peg at 168'. Tighten bolt at 8-9 flange to flush connection, (assumption is bolt is not seized).
- Optional: Shackles cannot be Rust Treated, would need to be replace with Standard Bolt Shackles, not Screw Pin. At 12 locations, need to come along guy wire to Tower, remove existing shackle, inside new correct shackle and release pressure on come along.
- Labor to Plumb and Tension Tower into Spec. Use Transit to plumb Tower, and Tension meters on each leg to get all tensions to 10% +/- 600lbs.

Service Proposal

Qty	Model #	Description	MSRP	OCPS	Unit/DSC	Total
1	DSDB43684B	DB4368-4-B, 450-470 MHZ 4 CH TX COMBINER	\$9,764.00	20%DSC	\$7,811.20	\$7,811.20
1	DSDB4368PIM	7/16 DIN JUNCTION AND SHRINK TUBING KIT FOR DB4368 SERIES COMBINER PIM	\$702.00	20%DSC	\$561.60	\$561.60
1	DSDB3826BPB	UHF DUAL UNIVERSAL MILLED WINDOW FILTER, 456-460MHZ/466-470MHZ	\$7,655.00	20%DSC	\$6,124.00	\$6,124.00
1	DSRMC0608BAN	RMC06 8 CH UNIVERSAL RMC SYSTEM, AC POWER, 350-512MHZ, NO ALARM BOARD.	\$2,554.00	20%DSC	\$2,043.20	\$2,043.20
1	DSDBMOFR43UM	DBMOFR-43UM, 43U FRAME RACK W/GROUND STRAP	\$1,731.00	20%DSC	\$1,384.80	\$1,384.80
3	DSDS4F06P36UD (Replacement for DS4C06F36U-D)	ANTENNA,6DBD OMNI,LOW-PIM,DIN 450-470 MHZ	\$2,904.00	20%DSC	\$2,323.20	\$6,969.60
600	AVA5P-50-C	7/8" COAX CABLING PRICE PER FOOT		Cost+10%	\$5.39	\$3,234.00
9	78EZDF	7/16 DIN Male Positive Stop for 1/2 in AL4RPV-50, LDF4-50A, HL4RPV-50 Cable		Cost+10%	\$28.24	\$254.13
5	L4TDM-PSA	1/2 in Foam Heliac Cable - Black Jacket (PRICE PER FOOT)		Cost+10%	\$14.66	\$73.32
15	LDF4-50A	Closed Hoisting Grips 7/8" (3 TOP)		Cost+10%	\$1.87	\$28.05
2	HG78-C	Lace-Up Hoisting Grips 7/8" (3 MIDDLE)		Cost+10%	\$26.39	\$52.78
2	HG78	Screw Pin Shackles 3/8" (1 Ton)		Cost+10%	\$26.39	\$52.78
4	SHK38	Cable Block Hardware Kits (PACK OF 10)		Cost+10%	\$5.81	\$23.23
12	CH50	Cable Blocks (7/8" CORRUGATED) (PACK OF 10)		Cost+10%	\$41.17	\$494.08
12	CXB78	Stainless 3/8" Angle Adapters (PACK OF 10)		Cost+10%	\$17.50	\$210.01
1	ADAP	Tower Standoff Kits (Pack of 10)		Cost+10%	\$58.26	\$58.26



1	STK2	Clip On Ground Kits (7/8" Corrugated T/M/B/S)		Cost+10%	\$74.72	\$74.72
8	GK-C78	Clip Hangers (1/2" PACK OF 10)		Cost+10%	\$31.30	\$250.36
1	12HC	Clip Hangers (7/8" PACK OF 10)		Cost+10%	\$17.50	\$17.50
1	78HC	4' Heavy-Duty Stand-Off Mounts		Cost+10%	\$20.17	\$20.17
2	HS4-K	4" Boot Kits - Coax Cables		Cost+10%	\$963.49	\$1,926.98
1	BA783	Cushion Inserts (7/8" Coax 2 Holes)		Cost+10%	\$34.75	\$34.75
1	SR782	Premium All Weather Weatherproofing Kit		Cost+10%	\$8.15	\$8.15
3	WK6S	Kopr-Shield Prevents oxidation and corrosion on bus bars and wire		Cost+10%	\$18.96	\$56.89
1	CP8-TB	Kopr-Shield Prevents oxidation and corrosion on bus bars and wire		Cost+10%	\$120.70	\$120.70
1	KIRMS TOWER (Per Contract No. R2111727A1_1)	Tower Crew Labor Per Estimate 2383 (Includes Repairs)		Cost+10%	\$50,600.00	\$50,600.00
48	Radio One SERVICES	Engineering, Staging, Technical Services and Project Management - Includes IM study up to 11th order. Billed Hourly			\$80.00	\$3,840.00

Subtotal	\$86,325.26
10% Contingency	\$8,632.53
Transportation	INCLUDED
Sales Tax	EXEMPT
TOTAL	\$94,957.79

Pricing Per:
Orange County Public Schools ITB2005168 Radios Portable
Products and Accessories Contract

Terms:


Deposit/Mobilization Milestone: 25% due at acceptance of proposal.
 Delivery of Equipment Milestone: 50% due Net10 of receipt of equipment.
 Final Billing Milestone: remaining 25% plus any change orders due Net10 completion.

Approved By: _____
PO: _____
Date: _____

Time to completion is TBD as site conditions and tower engineering study may affect timeline.



Motorola MSRP Pricing

 Motorola Solutions Quotation for Reseller Project						
Contact Name: Brennan Wartmann Company: Radio One Inc Phone Number: 561-951-7140 Email Address: brennanw@radio1inc.com Project Name: VOW Quote Version: V1.2			Quote Date: 3/8/2024 Quote Expiration: Thursday, June 06, 2024 Prepared By: Oscar Martinez COEE Review: Nicole Barleta Case Number: 03345531			
Item	Qty	Motorola Part Number	Description	Motorola List Price (USD)		Motorola Extended List Price (USD)
1	1	DSDB43684B	DB4368-4-B, 450-470 MHZ 4 CH TX COMBINER	\$ 9,764.00		\$ 9,764.00
2	1	DSDB4368PIM	7/16 DIN JUNCTION AND SHRINK TUBING KIT FOR DB4368 SERIES COMBINER PIM	\$ 702.00		\$ 702.00
3	1	DSDB3826BPB	UHF DUAL UNIVERSAL MILLED WINDOW FILTER, 456-460MHZ/466-470MHZ	\$ 7,655.00		\$ 7,655.00
4	1	DSRMC0608BAN	RMC06 8 CH UNIVERSAL RMC SYSTEM, AC POWER, 350-512MHZ, NO ALARM BOARD.	\$ 2,554.00		\$ 2,554.00
5	1	DSDBMOFR43UM	DBMOFR-43UM, 43U FRAME RACK W/GROUND STRAP	\$ 1,731.00		\$ 1,731.00
6	3	DSDS4F06P36UD (Replacement for DS4C06F36U-D)	ANTENNA,6DBD OMNI,LOW-PIM,DIN 450-470 MHZ	\$ 2,904.00		\$ 8,712.00
Equipment Total (USD)						\$ 31,118.00
						Extended Motorola List
Grand Total (USD)						\$ 31,118.00

Assumptions & Exclusions

1. A purchase order is required before starting any phase of the project. Please issue the purchase order to brennanw@radio1inc.com
2. Installation services will be conducted in accordance with manufacturer instructions.
3. Any change in the scope of work that has a price impact on the proposal presented will be reviewed and presented for discussion and may result in a change order.
4. Any cutting, patching, and fireproofing of rated / non-rated drywall, plaster and concrete are not included in this proposal.
5. The above scope of work is proposed as being performed during normal business hours (Monday through Friday, 8:00am to 5:00pm).
6. Facility access will be granted to Radio One engineering, project management, and installation teams as required to effectively design, implement, and test the proposed solution. This will be coordinated in accordance with best security practices.



7. Village of Wellington representative(s) for Facilities Management, Information Technology (IT) Services, and Security Management will be made available for support as required by Radio One, Motorola Solutions, and related subcontractors to complete the proposed services.
8. Village of Wellington will provide remote access for Radio One and Motorola Solutions deployment personnel to configure the system and for Customer Support to conduct diagnostics as needed.
9. Radio One cannot be held responsible for work delays caused by an absence of materials furnished by others.
10. The quote is valid for 8 weeks unless significant cost increases by the manufacturer, supply chain, or economic issues.

