

CITY OF HIGH POINT

AGENDA ITEM



Title: Radio System Microwave Purchase

From: Steve Lingerfelt, Director of Information
Technology Services

Meeting Date: May 18, 2020

Public Hearing: No

**Advertising Date /
Advertised By:**

Attachments: Aviat Networks, Inc. Quote

PURPOSE:

The City needs to purchase a Microwave System from Aviat Networks, Inc. for the 800 MhZ Radio System.

BACKGROUND:

Information Technology Services is recommending the City of High Point purchase a microwave system from Aviat Networks, Inc. for the 800 MhZ radio system at a purchase price of \$230,576 to replace a system that is nearing end of life.

BUDGET IMPACT:

The City of High Point will use existing funds in the FY 2019-20 budget to purchase the microwave system from Aviat Networks, Inc. The total cost of the contract is \$230,576.00. The microwave system is on the NASPO ValuePoint Cooperative Purchasing Agreement (05715).

RECOMMENDATION / ACTION REQUESTED:

The Department of Information Technology Services recommends approval of the contract and that the appropriate City official and/or employee be authorized to execute all necessary documents.



Aviat U.S., Inc.
860 N. McCarthy Blvd., Suite 200
Milpitas, CA 95035

Company **High Point NC**
Attn Lee Stanley
Address lee.stanley@highpointnc.gov
(336) 883-3404

Project Number:	NA181217-45585			
Project Date:	4/28/2020			
Issue No:	A3			
Territory Manager:	Mark Davis			
System Engineer:	Reyniero Medina			
Sales Engineer:	Gerard Sprintis			
Terms:	NET 30			
Delivery:	TBD			
Expiration:	90 days			
Currency:	USD			
Freight:	Prepaid & Add, Destination			
Contract:	NASPO ValuePoint Cooperative Purchasing Program Master Agreement			

HIGH POINT NC- 2 HOPS WITH ANTENNAS

Aviat Networks Confidential and Proprietary Information

ITEM	EQUIPMENT LIST DESCRIPTION	PRODUCT CODE PART NUMBER	UNIT PRICE	SYSTEM		PRIME		NORTH	
				QTY	PRICE	QTY	PRICE	QTY	PRICE
1.00	Eclipse products								
1.01	IRU600v4 RFSEC ASSY MHSB RX UNEQUAL SPLIT, IF TR SP-HP 5.8-U6 GHz, Filter-non ACCP	EV206-AMT-AM0-410000	\$8,964	4	\$35,856	2	\$17,928	1	\$8,964
1.02	ECLIPSE, INTELLIGENT NODE UNIT 2RU, INC IDCE, FAN, NCCV2, HIGH OUTPUT	EXX-000-204	\$960	3	\$2,880	1	\$960	1	\$960
1.03	KIT BRACKET 2RU (179-530064-001_R001)	179-530064-001	\$7	3	\$21	1	\$7	1	\$7
1.04	NODE PROTECTION CARD, HIGH OUTPUT	EXS-002	\$213	3	\$639	1	\$213	1	\$213
1.05	RAC 70, QPSK-4096QAM, NO XPIC, ACM	EXR-700-001	\$598	8	\$4,784	4	\$2,392	2	\$1,196
1.06	DAC GE3 GIGABIT ETHERNET SWITCH CARD	EXD-181-002	\$675	6	\$4,050	2	\$1,350	2	\$1,350
1.07	CABLE PROT / BRIDGEING GE3, DIRECT FIT, 500mm (VAHS-30-0346 REV X2)	037-579461-500	\$32	3	\$96	1	\$32	1	\$32
1.08	CABLE, ETHERNET, CAT 5E, SHIELDED, 26 AWG, INDOOR, BOTH ENDS RJ45 (M) CONNECTORS, 2M (6.56'), BLACK (037-579124-002V_REVA)	037-579124-002	\$5	8	\$40	4	\$20	2	\$10
1.09	XCVR ELECTRICAL SFP, GE3 ONLY, W/LOS 3V3 COM (ABCU-5700RZ)	083-845434-001	\$69	6	\$414	2	\$138	2	\$138
1.10	GIG ETH SFP, OPT MMF 850nm LC 1000BASE-SX, <550M (LM28-C3S-TC-N)	079-422662-001	\$42	6	\$252	2	\$84	2	\$84
1.11	AUX, ALARM I/O CARD	EXA-001	\$187	3	\$561	1	\$187	1	\$187
1.12	CABLE, ALARM I/O, 24AWG, HD15 TO WIREWRAP, 15M (037-579470-015V_REVX1)	037-579470-015	\$51	3	\$153	1	\$51	1	\$51
1.13	NODE SW LICENSE, 200 Mbps TOTAL RADIO PAYLOAD CAPACITY	EZE-08004	\$1,400	2	\$2,800			1	\$1,400
1.14	NODE SW LICENSE, 400 Mbps TOTAL RADIO PAYLOAD CAPACITY	EZE-08006	\$2,800	1	\$2,800	1	\$2,800		
1.15	ADAPTIVE MODULATION NODAL RAC60/6X/60E/6XE/70	EZF-02	\$420	3	\$1,260	1	\$420	1	\$420
2.00	Rack & accessories								
2.01	RACK ASSY, NO RACK, NO CRATE, 1 BREAKER PNL W/10 BLANK COVERS AND NO BREAKERS	179-530107-9910	\$629	3	\$1,887	1	\$629	1	\$629
2.02	COMMON BREAKERS & BLANKING PLUGS PER RACK PER DRAWING	COMMON-BREAKERS-RACK	\$35	3	\$105	1	\$35	1	\$35
2.03	WG EXT KIT IRU600 V3 6GHZ SH1-PO1, 1+0/MHSB 1ANT, RPTR(MAIN)	179-530135-AA101	\$304	3	\$912	1	\$304	1	\$304
2.04	WG EXT KIT IRU600 V3 6GHZ SH2-PO2, 1+0/MHSB 1ANT, RPTR(MAIN)	179-530135-BB201	\$944	1	\$944	1	\$944		
2.05	EXT BRKT KIT IRU600 2 SHELF (179-530089-001_REV002)	179-530089-001	\$182	1	\$182	1	\$182		
2.06	Installation Kit, Aluminum Rack, Concrete Floor (AV179-530119-001WA)	179-530119-001	\$828	3	\$2,484	1	\$828	1	\$828
2.07	Isolation Kit, 19" Rack (AV179-530121-001WA)	179-530121-001	\$492	3	\$1,476	1	\$492	1	\$492
2.08	GROUND BAR,KIT,RACK,R56 COMPLIANT,72 INCHES L X 5/8 INCHES WIDE X 1/4 INCHES DEPTH (TRGBVKIT145872AWA)	LOC-TRGBVKIT145872W	\$391	3	\$1,173	1	\$391	1	\$391
2.09	CHANNEL MOUNTING, FORWARD, U-SHAPE, 4 INCHES LONG (FORWARD) X 5/8 INCHES WIDE X 1.75 INCHES HIGH (1 RU) (020-018475-005_REV001)	020-018475-005	\$21	9	\$189	3	\$63	3	\$63
3.00	Antennas & Mounting Hardware								
3.10	Antennas								
3.11	ANTENNA, L6/U6 GHZ, 1.8 M (6FT), COMPACTLINE, UHP, REMOTE MOUNT, PARABOLIC (STD: WHITE), 5.925-7.125 GHZ, RADOME (STD: WHITE), CPR137G SINGLE POL., CLASS III/FCC101A, SINGLE PIECE REFLECTOR, 200 KMPH, 200 KMPH (SB6-W60CC)	RFS-SB6-W60XC	\$3,214	4	\$12,856	2	\$6,428	1	\$3,214
			\$28						
3.20	Mounting Hardware		\$28						
3.21	LEG MOUNT,UP TO 6 FEET ANTENNA DIAMETER,UP TO 8 INCHES DEPTHIAMETER LEG (MTC3513LMS)	179-530147-001	\$1,115	4	\$4,460	2	\$2,230	1	\$1,115
3.22	ICE SHIELD,12 INCHES X 48 INCHES,FOR WAVEGUIDE/MW EQUIPMENT (MD-IS4) (OPTIONAL)	AND-MD-IS4	\$373						
3.23	TWR FACE MNT, 14" STAND-OFF, 4-1/2" X 63", 3-1/2" X 14" PIPES, DBL STIFF ARM 2"-8" RND/ANG MEMBERS (TF-ML3S2-14) (OPTIONAL)	AND-TF-ML3S2-14	\$2,848						
3.24	CHAIN MOUNT,KIT,FOR MONOPOLE,UP TO 6 FEET ANTENNA DIAMETER,UP TO 30 INCHES DEPTHIAMETER,20 WAVEGUIDE SUPPORT BRACKETS,WITH SINGLE STRUT (MTC3513S6) (OPTIONAL)	179-530142-001	\$1,673						
4.00	6 GHz Waveguide & Accessories								
4.01	ELLIPTICAL WAVEGUIDE STANDARD, 5.925-7.125 GHZ, BLACK PE JACKET, PER FOOT (EW63-F)	AND-EW63-F	\$8	735	\$5,880	305	\$2,440	215	\$1,720
4.02	HARDWARE-KIT (ONE KIT PER 100FT) (HARDWARE-KIT)	AND-HARDWARE-KIT	\$275	9	\$2,475	3	\$825	3	\$825
4.03	EW63INSTALL-KIT (ONE KIT PER WAVEGUIDE RUN) (EW63INSTALL-KIT)	AND-EW63INSTALL-KIT	\$983	4	\$3,932	2	\$1,966	1	\$983
4.04	WAVEGUIDE BOOT FOR EW63, 4 IN (WGB4-63)	AND-WGB4-63	\$45	4	\$180	2	\$90	1	\$45
4.05	SNAP-IN HANGER KIT FOR EW63, KIT OF 10 (EWSH-63)	018-510001-001	\$111	24	\$2,664	10	\$1,110	7	\$777
4.07	GROUNDING KIT (24IN, 2 HOLE, LUG ATTACHED) (241088-4)	AND-241088-4	\$24	7	\$168	3	\$72	2	\$48
4.08	ENTRANCE PANEL, 2 PORT, 1 X 2 IN (204673-2A)	AND-204673-2A	\$58	3	\$174	1	\$58	1	\$58
5.00	Dehydrator System								

EQUIPMENT LIST		PRODUCT CODE	UNIT	SYSTEM		PRIME		NORTH	
5.01	DEHYDRATOR, AUTOMATIC, LAB4.50, 10-60 KPA, 300 L/H, 120 VAC 50/60 HZ INPUT, 6 AIR OUTLETS 3/8", ETHERNET. INCLUDES SIX HOSE FITTING ADAPTER STRAIGHT + SIX 90 DEGREE ELBOW + 40M HOSE. MOUNTING: WALL, FLOOR AND RACK. 19"W, 5.2"H (3RU), 13.2"D (C15130.602)	CIB-C15130.602	\$3,250	3	\$9,750	1	\$3,250	1	\$3,250
5.02	MANIFOLD, 1 PORT INLET, 2 PORTS OUTLET AND SHUT OFF VALVES, 3/8" PUSH-ON FITTING (K15019-007)	CIB-K15019-007	\$188	3	\$564	1	\$188	1	\$188
6.00 DC Power Systems									
6.10 DC Rectifier System									
6.11	EMPTY CHASSIS, FLATPACK S INTREPID POWER SYSTEM, NO CONTROLLER, -48VDC, REAR ACCESS, 80 AMP MAX, LVBD & SHUNT, 1 RU, 19", MID/FLUSH MOUNT, 3 EMPTY RECTIFIER POSITIONS, 2 LOAD BREAKER (NOT INCLUDED) POSITIONS, 2 BATTERY BRKR (NOT INCL) POS (FPSJ60I-ANL-VC)	ELT-FPSJ60I-ANL-VC	\$787	3	\$2,361	1	\$787	1	\$787
6.12	RECTIFIER, FOR FLATPACK S INTREPID, 1 RU, 100-250 VAC INPUT, 48 VDC OUTPUT, 1800 WATTS, 37.5 AMP @ 220 VAC INPUT, 20 AMP @ 110 VAC INPUT (241122.125.VC)	ELT-241122.125.VC	\$542	7	\$3,794	2	\$1,084	2	\$1,084
6.13	SMARTPACK S CONTROLLER, FOR FLATPACK S INTREPID, -48 VDC, 100 AMP SYSTEM, 1 RU, SNMP, 6 PROGRAMMABLE DIGITAL OR ANALOG SIGNALS INPUTS, 6 PROGRAMMABLE RELAY OUTPUTS (SPS-FPS100-A01-VV)	ELT-SPS-FPS100-A01-VV	\$619	4	\$2,476	1	\$619	1	\$619
6.14	LINE CORD, INDIVIDUAL AC INPUT FOR FLATPACK S POWER SYSTEM, AMP SHELF CONNECTOR, NEMA N515P AC SOURCE CONNECTOR, 10 FEET LENGTH, 14 AWG WIRE GAUGE (LA1014-L515P)	ELT-LA1014-L515P	\$68	6	\$408	2	\$136	2	\$136
6.15	CIRCUIT BREAKER, 30 AMP PLUG-IN BULLET, ELECTRO-MECHANICAL (CBB030E)	ELT-CBB030E	\$29	6	\$174	2	\$58	2	\$58
6.16	CIRCUIT BREAKER, 70 AMP PLUG-IN BULLET, ELECTRO-MECHANICAL (CBB070E)	ELT-CBB070E	\$29	6	\$174	2	\$58	2	\$58
6.17	BLIND PANEL, FOR EMPTY FLATPACK S INTREPID RECTIFIER SLOT (331E00116500)	ELT-331E00116500	\$27	3	\$81	1	\$27	1	\$27
6.18	PULLER, FOR BULLET BREAKER (BBPULR-01)	ELT-BBPULR-01	\$18	3	\$54	1	\$18	1	\$18
6.19	CABLE, ETHERNET, CAT 5E, SHIELDED, 26 AWG, INDOOR, BOTH ENDS RJ45 (M) CONNECTORS, 2M (6.56'), BLACK (037-579124-002V)	037-579124-002	\$5	3	\$15	1	\$5	1	\$5
6.20 Batteries			\$51						
6.21	BATTERY SYSTEM,VRLA,RACK MOUNTING,19 INCHES WIDTH,4 CELLS,TEL,1 TRAY,111-2019-1616,-48VDC OUTPUT,30AH,10 YEARS (H48TEL12-30-19)	CDT-H48TEL12-30-19	\$1,273	3	\$3,819	1	\$1,273	1	\$1,273
7.00 Spares (Optional)									
7.01	RFU, MP, IRU600v4 IF TR, 5.8-L6-U6 GHz, 5725-7125 MHZ	ERM-ATT-400	\$4,612						
7.02	NODE PROTECTION CARD, HIGH OUTPUT	EXS-002	\$213						
7.03	RAC 70, QPSK-4096QAM, NO XPIC, ACM	EXR-700-001	\$598						
7.04	DAC GE3 GIGABIT ETHERNET SWITCH CARD	EXD-181-002	\$675						
7.05	AUX, ALARM I/O CARD	EXA-001	\$187						
7.06	FAN TRAY KIT, IRU600v4 (2 Fan Trays per Kit)	179-531050-001	\$213						
7.07	ECLIPSE, NODE CONTROLLER CARD, SERIAL MGMT V2	EXN-004	\$462						
7.08	RF SWITCH IRU600 (SPDT-0D-12A-N-S9-C026)	131-142718-001	\$137						
7.09	INUE, 2RU FAN CARD	EXF-101	\$67						
8.00 Provision									
8.01	ProVision Solution Pack - 10 Nodes	614-225008-002	\$3,000	1	\$3,000				
8.02	PROVISION GDS PACKAGE, ELTEK SMARTPACK, FLATPACK POWER SYSTEMS, V1.8	614-700070-001	\$3,000	1	\$3,000				
8.03	PROVISION GDS PACKAGE, CIBRED DEHYDRATOR AIR CONDITIONER V1.0	614-700520-001	\$3,000	1	\$3,000				
9.00 Services									
9.10 Factory Services									
9.11	RADIO INTEGRATION	SVCS-IN-SIPQ-RI	\$3,492	1	\$3,492				
9.12	CUSTOMER ACCEPTANCE TESTING (OPTIONAL)	SVCS-IN-SIPQ-AT	\$2,527	1	\$2,527				
9.20 Project Administration									
9.21	Program Management-Day To Day	SVCS-IN-PM-PM	\$9,476	1	\$9,476				
9.22	Project Engineering-Day to Day	SVCS-IN-SS-PE	\$10,326	1	\$10,326				
9.30 Engineering									
9.31	Network Engineering	SVCS-PN-EN-SE	\$5,991	1	\$5,991				
9.32	NDE IP Network Planning and Design	SVCS-PN-CO-CO	\$1,416	1	\$1,416				
9.33	Transmission Engineering-Path Surveys/Design Finalization	SVCS-PN-EN-XE	\$8,882	1	\$8,882				
9.34	Frequency Coordination & Licensing	SVCS-PN-EN-XE-LA	\$5,613	1	\$5,613				
9.35	Project Engineering-Site Surveys	SVCS-IN-SS-PE	\$7,120	1	\$7,120				
9.36	Configuration Engineering	SVCS-IN-SS-CEDFT	\$1,899	1	\$1,899				
9.37	Drafting	SVCS-IN-SS-CEDFT	\$1,245	1	\$1,245				
9.40 Field Services									
9.41	Field Install (Antenna Systems)	SVCS-IN-IC-AS	\$38,118	1	\$38,118				
9.42	Field Install and Test (Radios)	SVCS-IN-IC-FI	\$16,488	1	\$16,488				
9.43	Field Install and Test (DC Power)	SVCS-IN-IC-FI	\$8,366	1	\$8,366				
9.44	Field Install and Test (ProVision)	SVCS-IN-IC-FI	\$1,716	1	\$1,716				
9.45	Traffic Cutover	SVCS-IN-IC-FI	\$3,260	1	\$3,260				
9.46	Equipment Removal - Radio	SVCS-IN-IC-FI	\$1,544	1	\$1,544				
9.47	Equipment Removal - Antenna	SVCS-IN-IC-AS	\$11,154	1	\$11,154				
9.48	Tieback - MATERIAL	SVCS-IN-IC-AS	\$572	1	\$572				
9.49	Rack/Radio installation - MATERIAL	SVCS-IN-IC-FI	\$644	1	\$644				