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P.O. Box 2297 Payson, AZ. 85547
(928) 474-2029

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(928) 425-3231 Ext. 8753

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1400 E. Ash St. Globe, AZ. 85501
(928) 425-3231 Ext. 8511



Don E. McDaniel Jr., County Manager
Phone (928) 425-3231 Ext. 8761

Joseph T. Heatherly, Finance Director
Phone (928) 425-3231 Ext. 8743

GILA COUNTY
www.gilacountyaz.gov

FAX (928) 425-0319
TTY: 7-1-1

SERVICE AGREEMENT NO. 033112
DIAMOND POINT MOUNTAIN EQUIPMENT INSTALLATION

THIS AGREEMENT, made and entered into this 18th day of APRIL, 2012, by and between Gila County, a political subdivision of the State of Arizona, hereinafter designated the County, and C&M Communications, of the Town of Payson, State of Arizona, hereinafter designated the Contractor.

WITNESSETH: The Contractor, for and in consideration of the sum to be paid him by the County, in the manner and at the time hereinafter provided, and of the other covenants and agreement's herein contained, hereby agrees, for himself, his heirs, administrators, successors, and assigns as follows:

ARTICLE 1 - SCOPE OF SERVICES: The Contractor shall provide for the complete provision in the scope of work below in a good and workmanlike and substantial manner and to the satisfaction of the County under the direction of the Gila County Public Works Division Flood Management Manager or designee. All work must be performed in conformance with industry standards and best practices.

Contractor shall perform the service of providing and installing a new repeater and antenna system at Diamond Point Mountain Site.

Scope of Service and Equipment Specifications

- See attached "Exhibit A" by mention made a binding part of this agreement as set forth herein.

Contractor Fee's

- See attached "Exhibit A" for contractor fees.
- Taxes shall be applied to material only. No taxes shall be levied on labor.

ARTICLE 2 - TERMINATION: The County reserves the right to terminate the Contract, in whole or in part at any time, when in the best interest of the County, without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work as directed in the notice. If the contract is terminated, the County shall be liable only for the services rendered under this contract and accepted material received by the County before the effective date of termination.

ARTICLE 3 - INDEMNIFICATION: Contractor shall indemnify, defend, save and hold harmless the County of Gila and its officers, officials, agents, and employees (hereinafter referred to as "Indemnatee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnatee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnatee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the County, its officers, officials, agents and employees for losses arising from the work performed by the Contractor for the County.

ARTICLE 4 - INSURANCE REQUIREMENTS: Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The County in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this contract by the Contractor, his agents, representatives, employees or subcontractors and Contractor is free to purchase additional insurance as may be determined necessary.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below.

1. **Commercial General Liability - Occurrence Form**

Policy shall include bodily injury, property damage and broad form contractual liability coverage.

- General Aggregate \$2,000,000
- Products - Completed Operations Aggregate \$1,000,000
- Personal and Advertising Injury \$1,000,000
- Each Occurrence \$1,000,000

a. The policy shall be endorsed to include the following additional insured language: **"The County of Gila shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor"**.

2. **Worker's Compensation and Employers' Liability**

| | |
|-------------------------|-----------|
| Workers' Compensation | Statutory |
| Employers' Liability | |
| Each Accident | \$100,000 |
| Disease - Each Employee | \$100,000 |
| Disease - Policy Limit | \$500,000 |

a. Policy shall contain a **waiver of subrogation** against the County of Gila.

- B. **ADDITIONAL INSURANCE REQUIREMENTS:** The policies shall include, or be endorsed to include, the following provisions:
1. On insurance policies where the County of Gila is named as an additional insured, the County of Gila shall be an additional insured to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.
 2. The Contractor's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.
 3. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.
- C. **NOTICE OF CANCELLATION:** Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage or endorsed to lower limits except after thirty (30) days prior written notice has been given to the County. Such notice shall be sent directly to **(Gila County Purchasing, 1400 E. Ash St., Globe, AZ, 85501)** and shall be sent by certified mail, return receipt requested.
- D. **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers duly licensed or approved unlicensed companies in the state of Arizona and with an "A.M. Best" rating of not less than B+ VI. The County in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.
- E. **VERIFICATION OF COVERAGE:** Contractor shall furnish the County with certificates of insurance (ACORD form or equivalent approved by the County) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.
- All certificates and endorsements are to be received and approved by the County before work commences.* Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.
- All certificates required by this Contract shall be sent directly to **(Gila County Purchasing, 1400 E. Ash St., Globe, AZ, 85501)**. The County project/contract number and project description shall be noted on the certificate of insurance. The County reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.
- F. **SUBCONTRACTORS:** Contractors' certificate(s) shall include all subcontractors as additional insured's under its policies **or** Contractor shall furnish to the County separate certificates and endorsements for each subcontractor. All coverage's for subcontractors shall be subject to the minimum requirements identified above.
- G. **APPROVAL:** Any modification or variation from the insurance requirements in this Contract shall be made by the County Attorney, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

ARTICLE 5 - LEGAL ARIZONA WORKERS ACT COMPLIANCE: Contractor hereby warrants that it will at all times during the term of this Contract comply with all federal immigration laws applicable to Contractor's employment of its employees, and with the requirements of A.R.S. § 23-214 (A) (together the "State and Federal Immigration Laws"). Contractor shall further ensure that each subcontractor who performs any work for Contractor under this contract likewise complies with the State and Federal

Immigration Laws. County shall have the right at any time to inspect the books and records of Contractor and any subcontractor in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of Contractor's or any subcontractor's warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, shall be deemed to be a material breach of this Contract subjecting Contractor to penalties up to and including suspension or termination of this Contract. If the breach is by a subcontractor, and the subcontract is suspended or terminated as a result, Contractor shall be required to take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or retain a replacement subcontractor as soon as possible so as not to delay project completion.

Contractor shall advise each subcontractor of County's rights, and the subcontractor's obligations, under this Article by including a provision in each subcontract substantially in the following form: "Subcontractor hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to Subcontractor's employees, and with the requirements of A.R.S. § 23-214 (A). Subcontractor further agrees that County may inspect the Subcontractor's books and records to insure that Subcontractor is in compliance with these requirements. Any breach of this paragraph by Subcontractor will be deemed to be a material breach of this contract subjecting Subcontractor to penalties up to and including suspension or termination of this contract."

Any additional costs attributable directly or indirectly to remedial action under this Article shall be the responsibility of Contractor. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of Contractor's approved construction or critical milestones schedule, such period of delay shall be deemed excusable delay for which Contractor shall be entitled to an extension of time, but not costs.

ARTICLE 6 - LAWS AND ORDINANCES: This agreement shall be enforced under the laws of the State of Arizona. Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor. The Contractor shall comply with the applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and applicable federal regulations under the Act.

ARTICLE 7- ANTI-TERRORISM WARRANTY: Pursuant to A.R.S. § 35-393.06(B) and 35-301.06(A) the Contractor certifies that it does not have scrutinized business operations in Iran or Sudan and that they are in compliance with the Export Administration Act and not on the Excluded Parties List.

ARTICLE 8 - CANCELLATION: This agreement is subject to cancellation pursuant to A.R.S. §38-511. If the Agreement is terminated, the county shall be liable only for payment for services rendered and accepted material received by the County before the effective date of termination.

ARTICLE 9 - RELATIONSHIP OF THE PARTIES: Contractor is an independent contractor of the County. Contractor represents that he has or will secure, at his own expense, all personnel required in performing the services under this contract. Such personnel shall not be employees of or have any contractual relationship with the County. All personnel engaged in work under this contract shall be fully qualified and shall be authorized or permitted under State and local law to perform such services. Contractor warrants that he has obtained or will obtain Worker's Compensation Insurance for his employees working on this contract and that any subcontractors will likewise obtain Worker's Compensation Insurance for of their employees working on this contract. It is further agreed by

Contractor that he shall obey all state and federal statutes, rules, and regulations which are applicable to provisions of the services called for herein. Neither Contractor nor any employee of the Contractor shall be deemed an officer, employee, or agent of the County.

ARTICLE 10 – NON-APPROPRIATIONS CLAUSE: Contractor acknowledges that the County is a governmental entity, and the contract validity is based upon the availability of public funding under its authority. In the event that public funds are unavailable and not appropriated for the performance of County's obligations under this contract, then this contract shall automatically expire without penalty to County after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the County shall only activate this non-appropriation provision as an emergency fiscal measure. The County shall not activate this non-appropriation provision for its convenience, to circumvent the requirements of this contract, or to enable the County to contract with another Contractor for the same supplies or services covered under this Addendum.

ARTICLE 11 – ENTIRE CONTRACT CLAUSE: The Contractor and the County have read this Contract and agree to be bound by all of its terms, and further agree that it constitutes the entire contract between the two parties and may only be modified by a written mutual contract signed by the parties. No oral agreement or oral provision outside this Contract shall have any force or effect

ARTICLE 12 – NON-WAIVER OF ENFORCEABILITY: Failure of the County to enforce, at any time, any of the provisions of this Contract, or to request at any time performance by Contractor of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way affect the validity of this contract or any part thereof, or the right of the County to enforce each and every provision

ARTICLE 13 – GOVERNING LAW: Both parties agree that this Contract shall be governed by the laws of the state of Arizona. The parties further agree that the jurisdiction for any legal disputes arising out of this Contract shall be the Superior Court of the State of Arizona. The parties agree that even if this Contract does not specifically reference any provision required by state or federal law, those state and federally required provisions are incorporated into this Contract by this reference as though they were specifically listed herein.

ARTICLE 14– TERM: Contract shall be effective date signed by the County Manager and expires **August 31, 2012.**

ARTICLE 15 – PAYMENT/BILLING: Contractor shall be paid pursuant to the payment schedule in Article 1 of this agreement but in no event shall payment exceed **\$ 6,250.00** without prior written approval from the County.

All invoices shall be submitted to Gila County Accounts Payable, 1400 E. Ash St, Globe, Arizona and include the following information:

- Purchase Order Number
- Contract Number
- Invoice Number
- Service Location
- Vendor Name and Address
- Description of Service

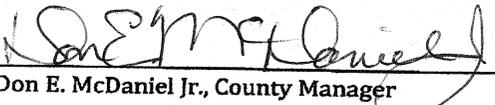
Any alterations to the scope of work resulting in a change in cost must have prior written approval by the County. Any unauthorized work may result in non-payment to the vendor.

Gila County employs a "Net 15" payment term for services meaning the payment will be issued fifteen (15) days from the date the County receives the invoice from the Contractor. Purchase orders sent to the Contractor reflect these terms and conditions.

The Contractor shall have a current I.R.S. W-9 form on file with the County unless not required by law. The County shall not remit payment if the Contractor does not have a current W-9.

IN WITNESS WHEREOF, two (2) identical counterparts of **Agreement No. 033112**, each for all purposes shall be deemed an original thereof, have been duly executed by the parties hereinabove named, on the date and year first above written.

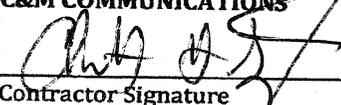
GILA COUNTY



Don E. McDaniel Jr., County Manager

Date: 4/18/12

C&M COMMUNICATIONS

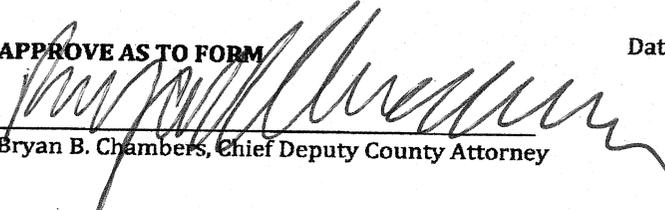


Contractor Signature

Christopher F. Salsot
Print Name

Date: 04-10-2012

APPROVE AS TO FORM



Bryan B. Chambers, Chief Deputy County Attorney

EXHIBIT "A"

C&M COMMUNICATIONS
P. O. BOX 1130
77 S. WALTERS LANE
PAYSON, AZ 85547
(928) 472-9777

Gila County Highway Department
ATTN: Darde DeRoulhac

February 24, 2012

RE: Repeater system for Diamond Pt.

Per our discussion this is our quote for supplying a new highway department repeater and antenna system for installation at our Diamond Pt mtn site.

Kenwood TKR-7510PS 25 watt VHF programmable narrowband repeater with built in power supply, tuned to customer channels and codes; \$1488.00

EMR 64536/ENCI-1VHF 100 watt Isoplexer tuned to customer channels; \$1894.00. Nominal 3-4 week lead time to have this made and tuned.

Sinclair SD212 5.5 db gain VHF omni directional antenna with 1\2 inch hardline cable and RF connectors; \$1013.00

MTRON-PTI 4133-VBN receiver crystal filter and Advanced Receiver Research P150VDG receiver preamplifier, \$875.00. Nominal 6-8 week lead time to have this filter made.

Programming, tuning, interfacing, setup, and installation of above equipment at Diamond Pt. Site; \$500.00

Total cost; \$5770.00

All equipment quoted is new and comes with each manufacturers published warranty.

Applicable taxes will be added to final invoice.

This is an all inclusive quote only.

If you have any questions, please contact Chris at the above number.

This quote is valid for 30 days from above date.

To place an order, please sign and return this quote via fax to: 928 472-7003 along with a copy of your purchase order.

Thank You;

Quote prepared by: CFS

Customer acceptance of above terms and conditions

Signature _____

Title _____

Date _____

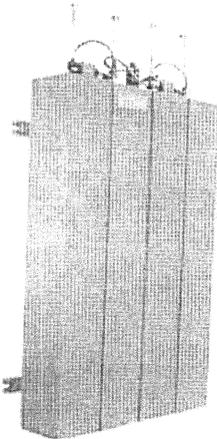
DUPLEXERS - BASE STATION ANTENNA

144 - 190 MHz

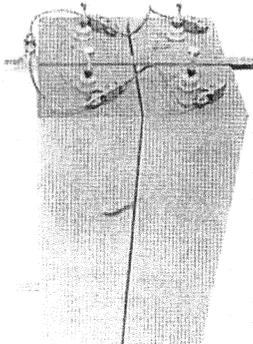
64536/ENC



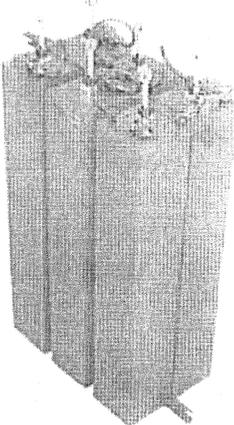
64544/SNC



64674/SNC



64546/SNC



PASS NOTCH

ELECTRICAL SPECIFICATIONS

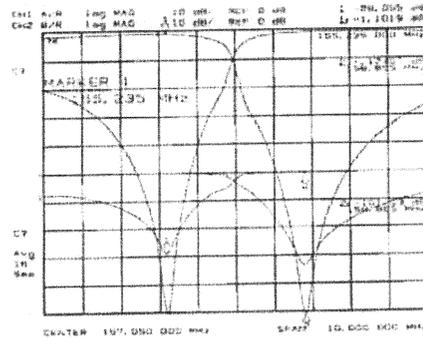
| Model Number | 64536/ENC | 64544/SNC | 64674/SNC | 64546/SNC |
|----------------------|---|--------------------|--------------------|--------------------|
| Frequency Band (MHz) | 144-190 | 144-190 | 144-190 | 144-190 |
| Input Power | 100 W | 150 W | 200 W | 150 W |
| Spacing vs Loss | Min Space: 3.00 MHz Max Loss: 2.0 dB | 1.00 MHz 1.2 dB | 0.75 MHz 1.5 dB | 0.50 MHz 1.8 dB |
| Spacing vs Loss | Max Space: 15 MHz Min Loss: 1.2 dB | 15 MHz 0.8 dB | 15 MHz 0.8 dB | 15 MHz 1.2 dB |
| Isolation | Min: 80 dB Type: 85 dB | 80 dB 85 dB | 80 dB 85 dB | 90 dB 95 dB |
| Cavities | Size / Qty: 3" / 6 | 4" / 4 | 7" / 4 | 4" / 6 |
| List Price | \$1,225.00 | \$1,760.00 | \$2,060.00 | \$2,675.00 |

MECHANICAL SPECIFICATIONS

| Dim (HxWxD) (Max.) | Inches | 3 1/2 x 19 x 15 | 32 1/2 x 19 x 4 1/2 | 32 1/2 x 19 x 14 1/4 | 32 1/2 x 19 x 8 1/8 |
|--------------------|--------|-----------------|---------------------|----------------------|---------------------|
| | Metric | 89 x 483 x 381 | 826 x 483 x 115 | 826 x 483 x 362 | 826 x 483 x 207 |
| Connectors | | N Female | N Female | N Female | N Female |
| Finish | | Chem Film | EMR Gray | EMR Gray | EMR Gray |
| Ship Weight: lbs. | | 11 | 33 | 75 | 71 |
| kg. | | 5.0 | 15.0 | 34.1 | 32.3 |

Dimensions are based on mounted position in a standard relay rack

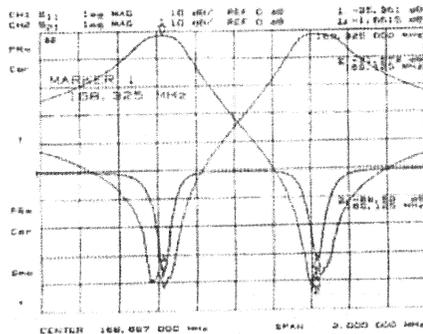
64536/ENC



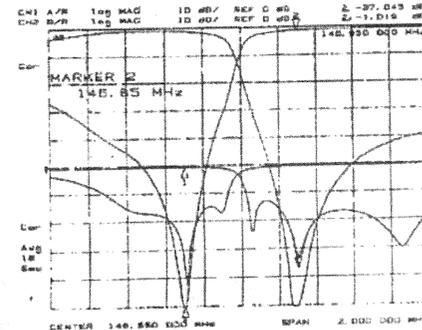
64544/SNC



64674/SNC



64546/SNC



Electrical Specifications

| | | |
|-----------------------------|-----------|--------------------------|
| Frequency Range | MHz | 138 to 174 |
| Bandwidth | MHz | 36 |
| Connector | | N-Male |
| Gain (nominal) | dBd (dBi) | 5 (7.1) |
| Input VSWR (max) | | 1.5:1 |
| Polarization | | vertical |
| Impedance | Ω | 50 |
| Pattern | | Bi-directional |
| Vertical beamwidth (typ) | degrees | 17 |
| Average Power Input (max) | W | 250 |
| Lightning protection | | DC ground |
| Electrical tilt (available) | | 0,2,4,6,8, or 10 degrees |

Mechanical Specifications

| | | |
|------------------------------------|----------|--------------------------------|
| Depth | in (mm) | 4.75 (121) |
| Length/ Height | in (mm) | 120 (3048) |
| Width | in (mm) | 42.75 (1086) |
| Base pipe diameter | in (mm) | 2.78 (71) |
| Radiating element material | | aluminum |
| Base pipe material | | aluminum |
| Weight | lbs (kg) | 39.5 (17.93) |
| Mounting Hardware (Optional) | | Clamp006A or Clamp147 *1 |
| Actual Shipping weight | lbs (kg) | 67 (30.42) |
| Shipping dimensions | in (mm) | 126x48x6 (3200x1219x152) |
| Mounting configurations | | Universal Mount |
| Recommended For Offset Side Mount: | | SMK-425-A3-T3 or SMK-425-A7-T3 |

Environmental Specifications

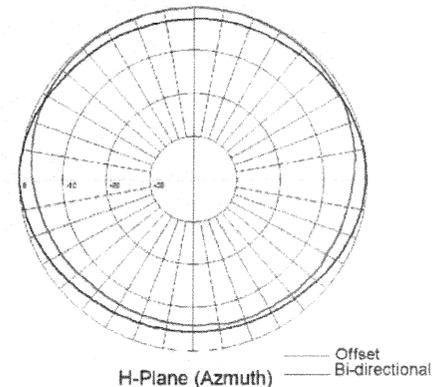
| | | |
|---|-------------|--------------------------|
| Temperature range | °F (°C) | -40 to +140 (-40 to +60) |
| Wind Loading Area (Flat Plate Equivalent) | ft² (m²) | 2.89 (0.27) |
| Wind Loading Area (1/2" ice) | ft² (m²) | 4.39 (0.41) *2 |
| Rated wind velocity (no ice) | mph (km/h) | 175 (282) |
| Rated wind velocity (1/2" radial ice) | mph (km/h) | 150 (242) |
| Lateral thrust (100 mph No Ice) | lbs (N) | 103 (458.1) *3 |
| Torsional moment (100 mph No Ice) | ft-lbs (Nm) | 102 (137.7) *4 |
| Bending moment (100 mph No Ice) | ft-lbs (Nm) | 332 (448.2) *5 |
| Tip deflection (100 mph No Ice) | degrees | 0.34 *6 |

Notes

- *1 : Qty 2
- *2 : 0.5" radial ice
- *3 : Value based on 100 mph with 0" ice
- *4 : Value based on 100 mph with 0" ice
- *5 : Value based on 100 mph with 0" ice
- *6 : Value based on 100 mph with 0" ice

Ordering Information

Clamps must be ordered separately.



www.sinctech.com

| Region | United States | Europe, Middle East and Africa | Caribbean and Latin America | Canada and rest of the world |
|-----------|-----------------------|--------------------------------------|--------------------------------|--|
| Telephone | USA: 1 800 263 3275 | International: +44 (0) 1487 84 28 19 | International: +1 905 726 7676 | Canada: 1 800 263 3275 International: +1 905 727 0165 |
| E-mail | salesusa@sinctech.com | salesuk@sinctech.com | salesla@sinctech.com | salescan@sinctech.com |

Product Specification Sheet
EPR 017622

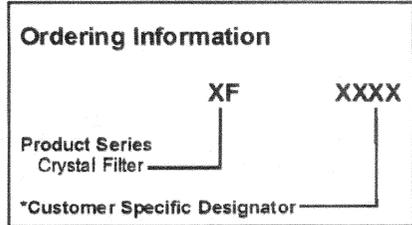
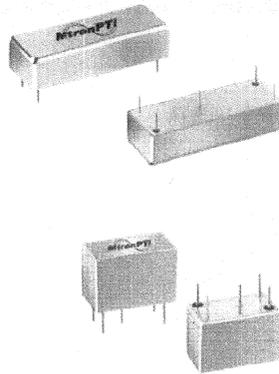
SD212-HF2P2SNM(D00)

Issue: 7

Dated: 28-02-12
Dated: 18-08-04

XF Series Crystal Filters (Discrete and Monolithic)

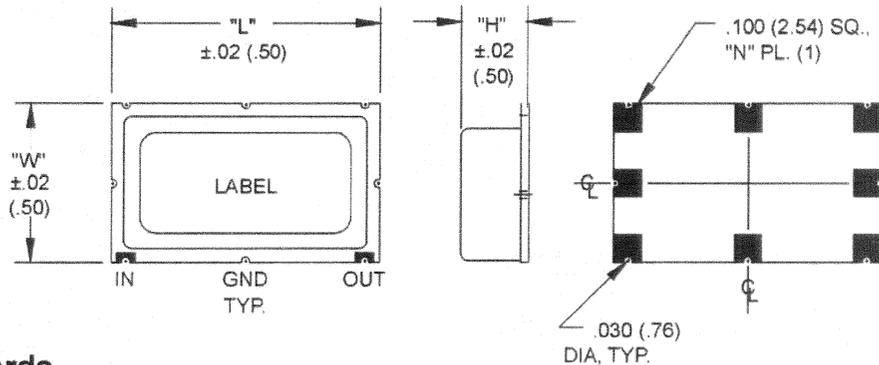
- 5 to 250 MHz
- Bandwidth:
 - Discrete: 0.01 to 2%
 - Monolithic: 0.014 to 0.5%
- Variety of Package Configurations
 - Connectorized
 - Surface Mount
 - Through Hole
- Operating Temperature Range to -45°C to +85°C
- Space Qualified
- Custom Design Capability



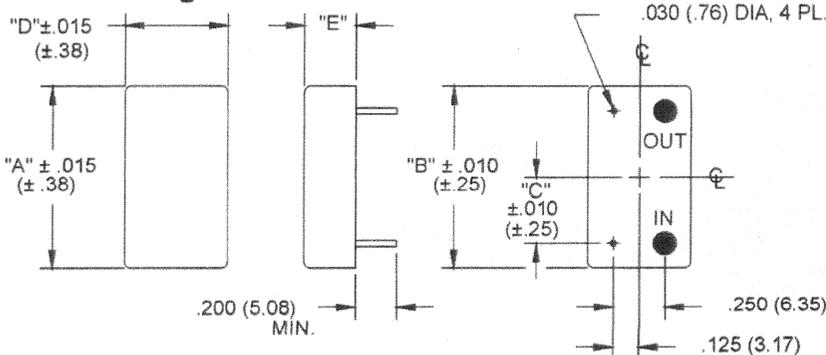
*Assigned based on specific customer and product characteristics.

| Type | Frequency (MHz) | 3 dB % BW | Shape Factor | Insertion Loss | VSWR | Max. Temperature | # of Poles | Impedance (Ohms) |
|------------|-----------------|---------------|------------------|-------------------|-----------------|------------------|-------------------|------------------|
| Discrete | 5 - 250 | 0.01% - 2% | 1.5:1 and higher | 1.5 dB for 2-pole | 1.5:1 or higher | -45°C - +85°C | 2-pole to 12-pole | 50Ω typical |
| Monolithic | 5 - 200 | 0.014% - 0.5% | 2:1 and higher | 1.5 dB for 2-pole | 1.5:1 or higher | -45°C - +85°C | 2-pole to 12-pole | 50Ω typical |

Surface Mount Standards



Through Hole Standards

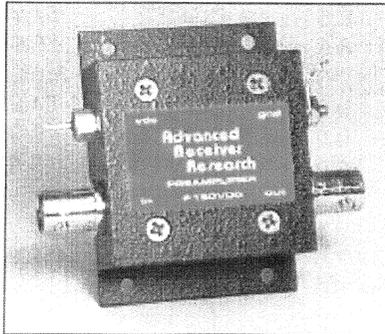


MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

Ar² Communications Products

High Performance Receive Only Commercial Preamplifiers



Features:

- Low noise figure
- High immunity to overload
- Completely shielded
- Suitable for mast/tower mounting
- Small size
- Rugged low profile custom enclosure

Series PXXXVD, PXXXVDA and PXXXVDG preamplifiers have been designed for the most demanding commercial and military applications. Each model has been optimized for the lowest noise figure consistent with excellent strong signal handling capability. These preamplifiers are suitable for use in any receiver or converter/receiver system. Each preamplifier is housed in a rugged low profile custom aluminum enclosure finished with military grade black urethane enamel. Female BNC coaxial fittings are provided for the input and output connections. Other connectors or connector combinations are available. Complete rf shielding is maintained with a feedthrough capacitor for the dc power connection. Mounting holes, suitable for #4 hardware, are located at each corner of the bottom plate.

Several models of preamplifiers are available for most frequency ranges. Selection of the most suitable model for a particular application will depend primarily on the noise figure and overload characteristics required. Preamplifier models using dual-gate MOSFET and bipolar transistor devices (part numbers with suffix VD or VDA) are suitable for most fixed location and mobile applications. Gallium-arsenide FET (GaAsFET) preamplifiers (part numbers with the suffix VDG) provide the lowest noise figures and highest immunity to overload of any preamplifier types. These preamplifiers would be well suited for those systems where absolute best coverage is desired, or in areas where strong signal levels are normally a problem.

Extensive testing of these preamplifiers on existing communications systems indicate that a signal-to-noise improvement of 6 - 14 dB can be expected. For example, a 10 dB improvement in receiver signal-to-noise performance would give a users 5-watt handheld the same range as a 50 watt unit! Each and every preamplifier is precision aligned on our noise figure measuring equipment and should provide long trouble free operation.

All preamplifiers are designed to be powered by a 10 - 16 volt dc source with a current consumption of 25 mA. Low power consumption along with the small size make these preamplifiers ideal for installation within existing equipment or systems, or for remote mounting at the antenna. Mounting the preamplifier at the antenna will provide the best system noise figure.

Specifications

| Model | Freq. Range (MHz) | N.F. (dB) | Gain (dB) | 1 dB Comp. (dBm) | 1 dB Bandwidth (MHz) | Device Type | Price |
|-------|-------------------|-----------|-----------|------------------|----------------------|-------------|-------|
|-------|-------------------|-----------|-----------|------------------|----------------------|-------------|-------|