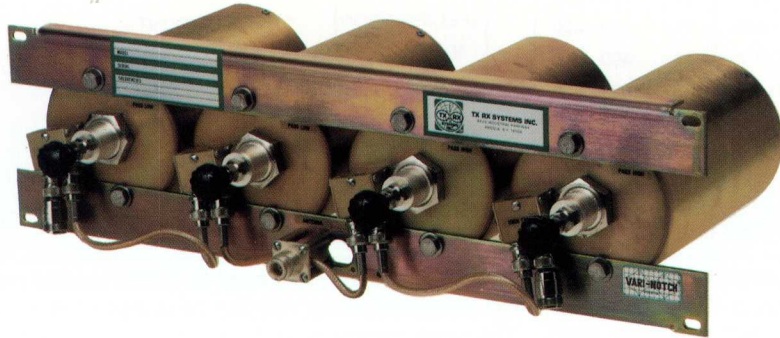


# DUPLEXERS

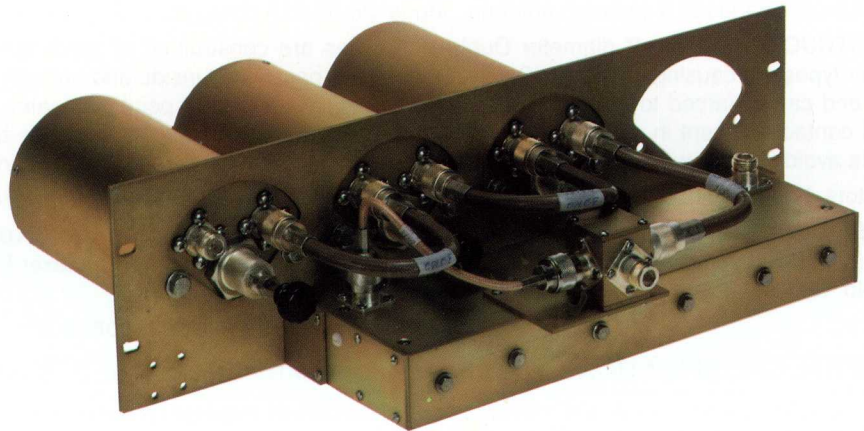
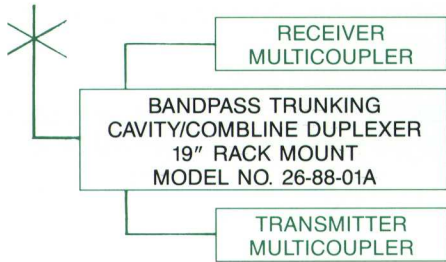
## 806 MHz-1.3 GHz

IN RANGES OF:  
 806 - 866 MHz  
 890 - 960 MHz  
 1215 - 1300 MHz

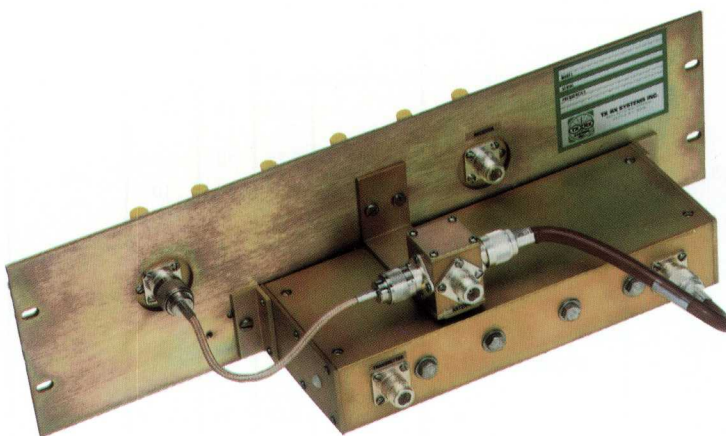


(PATENTED)

19" RACK MOUNTS  
 MODEL NOS.  
 28-88-01A  
 28-89-01A  
 28-97-01A



DUPLEXERS: 806 MHz-1.3 GHz



DUPLEXERS • CAVITY FILTERS • MULTICOUPLER SYSTEMS • SIGNAL BOOSTER SYSTEMS • RF SYSTEM PRODUCTS

TX RX SYSTEMS INC. 8625 INDUSTRIAL PARKWAY, ANGOLA, NY 14006  
 TELEPHONE 716-549-4700 FAX 716-549-4772 (24 HRS.)

A MEMBER OF THE BIRD TECHNOLOGIES GROUP

## DUPLEXER NOMENCLATURE

FIRST PAIR OF NUMBERS	SECOND PAIR OF NUMBERS	THIRD PAIR OF NUMBERS PLUS LETTER																					
CIRCUIT STYLE	FREQUENCY RANGE (MHz)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">TWO DIGIT NUMBER</th> <th style="width: 66%;">MOUNTING STYLE</th> </tr> </thead> <tbody> <tr> <td rowspan="8" style="text-align: center; vertical-align: middle;">ELECTRICAL SPECIFICATION IDENTIFIER</td> <td>A : 19" RACK MOUNT</td> </tr> <tr> <td>B : 19" REVERSE FLUSH RACK MOUNT</td> </tr> <tr> <td>C : 19" CROSS RACK MOUNT</td> </tr> <tr> <td>D : DUST COVERED SIDE-OF-CABINET OR WALL MOUNT</td> </tr> <tr> <td>E : 24" RACK MOUNT</td> </tr> <tr> <td>F : WALL MOUNT</td> </tr> <tr> <td>G : CABINET MOUNTED</td> </tr> <tr> <td>H : MOBILE PLATE MOUNTED</td> </tr> </tbody> </table>	TWO DIGIT NUMBER	MOUNTING STYLE	ELECTRICAL SPECIFICATION IDENTIFIER	A : 19" RACK MOUNT	B : 19" REVERSE FLUSH RACK MOUNT	C : 19" CROSS RACK MOUNT	D : DUST COVERED SIDE-OF-CABINET OR WALL MOUNT	E : 24" RACK MOUNT	F : WALL MOUNT	G : CABINET MOUNTED	H : MOBILE PLATE MOUNTED										
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26 - : BAND PASS CIRCUIT 27 - : NOTCH CIRCUIT 28 - : VARI-NOTCH CIRCUIT (PSEUDO BAND PASS) 30 - : PSEUDO-BANDPASS/NOTCH (NON - VARI - NOTCH) 33 - : SERIES NOTCH CIRCUIT (TUNABLE PASS BANDS) 38 - : PSEUDO BANDPASS (NON - VARI-NOTCH) 74 - : BAND PASS CIRCUIT (2 - CHANNEL T-PASS)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 50%;">- 13 - : 30 - 40</td> <td style="width: 50%;">- 52 - : 215 - 250</td> </tr> <tr> <td>- 14 - : 38 - 50</td> <td>- 65 - : 406 - 430</td> </tr> <tr> <td>- 26 - : 66 - 77</td> <td>- 66 - : 442 - 450</td> </tr> <tr> <td>- 27 - : 77 - 88</td> <td>- 69 - : 470 - 512</td> </tr> <tr> <td>- 28 - : 66 - 88</td> <td>- 70 - : 450 - 470</td> </tr> <tr> <td>- 29 - : 88 - 108</td> <td>- 71 - : 470 - 490</td> </tr> <tr> <td>- 35 - : 108 - 136</td> <td>- 72 - : 490 - 512</td> </tr> <tr> <td>- 36 - : 132 - 150</td> <td>- 88 - : 890 - 960</td> </tr> <tr> <td>- 37 - : 144 - 174</td> <td>- 89 - : 806 - 866</td> </tr> <tr> <td>- 38 - : 132 - 174</td> <td>- 97 - : 1215 - 1300</td> </tr> <tr> <td>- 41 - : 148 - 174</td> <td></td> </tr> </tbody> </table>	- 13 - : 30 - 40	- 52 - : 215 - 250	- 14 - : 38 - 50	- 65 - : 406 - 430	- 26 - : 66 - 77	- 66 - : 442 - 450	- 27 - : 77 - 88	- 69 - : 470 - 512	- 28 - : 66 - 88	- 70 - : 450 - 470	- 29 - : 88 - 108	- 71 - : 470 - 490	- 35 - : 108 - 136	- 72 - : 490 - 512	- 36 - : 132 - 150	- 88 - : 890 - 960	- 37 - : 144 - 174	- 89 - : 806 - 866	- 38 - : 132 - 174	- 97 - : 1215 - 1300	- 41 - : 148 - 174	
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**EXAMPLE:** A Model 26-89-03A is a BANDPASS circuit, 806 - 866 MHz range, 19" rack mount Duplexer.

**VARI-NOTCH®**, the trademark for **TX RX SYSTEMS'** pseudo bandpass circuit design, offers the best **cost-to-performance** ratio in its class and is unsurpassed for close-spaced duplexing, combining the low loss and close frequency spacing advantages of notch filters with the broad isolation and selective pass characteristics of bandpass filters. The small geometry and efficiency of this circuit design has also resulted in a variety of space efficient mountings.

**TRUNKING DUPLEXERS** combine transmitter and receiver multicouplers to a common antenna. The receive section provides the total system isolation required for carrier suppression. The transmit section usually provides supplemental noise suppression, with the cavities in the transmit multicoupler being the major contributor. The model 26-89-03A combines the 806-821 MHz receive and 851-866 MHz transmit bands to a common antenna. Model 26-88-01A combines 896-901 MHz receive and 935-940 MHz transmit similarly.

**CONSTRUCTION:** Our 4" diameter Duplexer cavities are constructed of hardened aluminum which does not easily dent, as some copper types do, causing detuning. Cavity surfaces are passivated inside and out with a chromate conversion coating (Alodine). A 3/16" thick end cap heliarced to the top of the cavity at the critical current point eliminates the problem of noise generated by poor metal to metal contact inherent in constructions using pop rivets. Silver plating the movable brass tuning probes and hardened copper contact fingers avoids erratic tuning, high loss, and degraded selectivity which result in extra time and costs.

Adaptors, hookup cables, and other hardware are displayed on page 3 of the Duplexer/Filter Price List No. C6457.

**OTHER DUPLEXER BROCHURES** are available for bands **30-88 MHz** (Lit. No. C1014), **132-250 MHz** (Lit. No. C1024), and **406-512 MHz** (Lit. No. C1034). Also write for Tech-Aid No. 76007 (Lit. No. C3004), "Duplexer Problems and Remedies", and Tech-Aid No. 80009 (Lit. No. C3104), Duplexer Response Curves.

### BASE STATION MODELS

**GENERAL SPECIFICATIONS, ELECTRICAL:** TEMPERATURE RANGE: -40° C TO +80° C      IMPEDANCE: 50 Ohms      VSWR: 1.3:1

NOTE : Specifications for duplexers of unsymmetrical construction or response are listed as follows: ISOLATION - noise suppression/carrier suppression; INSERTION LOSS - TX insertion loss/ RX insertion loss.

FREQUENCY RANGE MHz (SUB-RANGE)	MODEL NO.	ELECTRICAL					MECHANICAL										
		MIN. FREQ. SEP. MHz	POWER RATING WATTS	ISOLATION dB		INSERTION LOSS dB	CAVITIES		DIMENSIONS				TX AND RX PORTS	ANTENNA PORT			
				PER CHAN.	BET. CHAN.		NO.	SIZE	STYLE	ALT. MODEL NO.	H"	W"		D"	STD.	OPT.	
(806-866)	26-89-03A	45.0	600	45/77	45	0.5/1.0	2	COMBLINES	A		5.25	19	+7-2	N	N	....	
(806-866)	28-89-01A	45.0	125	90	60	0.8	4	4" DIA.	A	.....	5.25	19	+3-6.5	N	N	....	
<b>806-960</b>	(890-960)	28-88-04A	39.0	125	90	50	0.8	4	4" DIA.	A	.....	5.25	19	+3-6.5	N	N	....
										B	28-88-04B	5.25	19	10			
	(890-960)	26-88-01A	39.0	600	55/100	50	0.6/1.2	1	COMBLINE & 4" DIA.	A		5.25	19	+7-6.5	N	N	....
	(890-960)	28-88-01A	3.6	125	90	40	1.25	4	4" DIA.	A	.....	5.25	19	+3-6.5	N	N	....
B	28-88-01B	5.25	19	10													
<b>1215-1300</b>	28-97-01A	12.0	125	100	50	1.0	4	4" DIA.	A	.....	5.25	19	+3-6.5	N	N	....	
									B	28-97-01B	5.25	19	10				