

225 – 520 MHz Coaxial Circulators, UHF-Band, 3A2BV / 3A2BW

Technical Data Sheet

3A2BV

FEATURES:

- 44% Bandwidth
- 75 W CW Power Handling
- Compact size
- Temperature Stable

APPLICATIONS:

- Land Mobile Radio
- Private Mobile Radio
- Military and Commercial Application

DESCRIPTION:

Renaissance's 225–520 MHz coaxial circulators (3A2BV / 3A2BW) are designed for public safety and LMR/PMR applications requiring wide frequency coverage and dependable operation. With an impressive 44% bandwidth, 1 dB insertion loss, and 14 dB isolation, these devices deliver strong signal control while improving overall system efficiency. Supporting up to 75 W CW power with a low 1.40:1 VSWR, they provide stable performance across multiple bands in a compact solution ideal for demanding UHF communication environments.

ELECTRICAL CHARACTERISTICS:

DESCRIPTION	MIN	TYP	MAX	UNITS
Frequency Range	225/350		350/520	MHz
BW		1.0		MHz
Isolation	14			dB
Insertion Loss			1.0	dB
Return Loss	15.5			dB
Impedance		50		Ω
Power Rating			75	W
Termination Power Rating			2	W
Operating Temperature	+20		+41	°C

MECHANICAL SPECIFICATIONS

SIZE	
Length	2.83"
Width	2.80"
Height	1.14"
Connectors	SMA-F

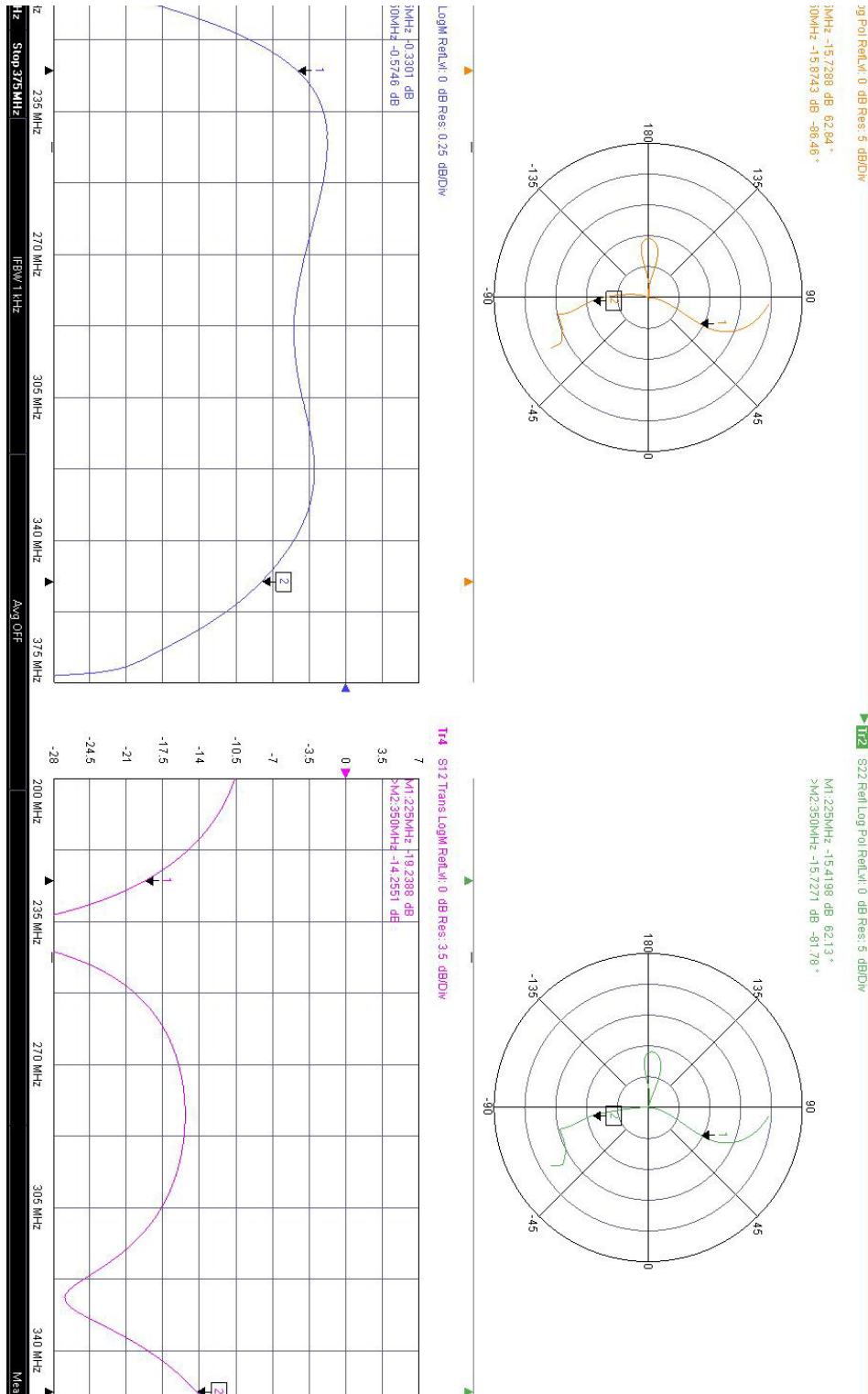
R0 (March 5th 2026)

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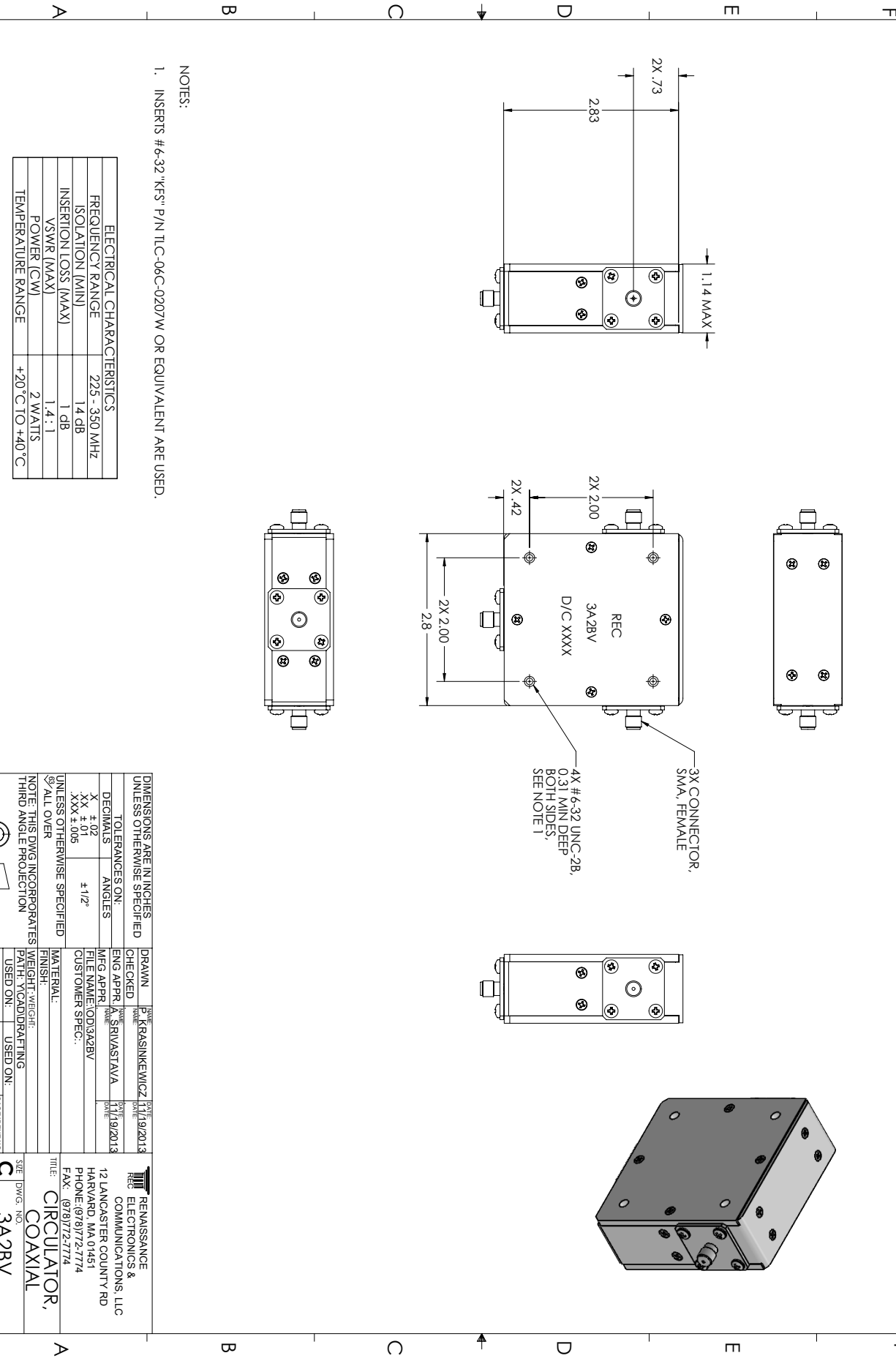
TYPICAL PERFORMANCE DATA:



March 5th 2026)

WITH QUOTATION OR AT TERMINATION OF MANUFACTURING CONTRACT OR ON DEMAND OF REC WHICH-EVER IS FIRST.

ZONE	REV.	ECO	DESCRIPTION	DATE	APPROVED
A		20130299	INITIAL RELEASE	11/19/2013	
B		20140035	UPDATED FA	02/24/2014	



NOTES:
1. INSERTS #6-32 "KFS" P/N TLC-06C-0207W OR EQUIVALENT ARE USED.

ELECTRICAL CHARACTERISTICS	
FREQUENCY RANGE	225 - 350 MHz
ISOLATION (MIN)	14 dB
INSERTION LOSS (MAX)	1 dB
VSWR (MAX)	1.4:1
POWER (CW)	2 WATTS
TEMPERATURE RANGE	+20 °C TO +40 °C

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		DRAWN		DATE	
TOLERANCES ON:		DATE	DATE	RENAISSANCE ELECTRONICS & COMMUNICATIONS, LLC	
DECIMALS	ANGLES	11/19/2013	11/19/2013	12 LANCASTER COUNTY RD	
X ± .02	1/2°	ENG APPR: P. KRASINKEWICZ	CHKD: P. KRASINKEWICZ	HARVARD, MA 01831	
XX ± .01		DATE: 11/19/2013	DATE: 11/19/2013	PHONE: (978) 72-7774	
XXX ± .005		FILE NAME: 03A2BV		FAX: (978) 72-7774	
UNLESS OTHERWISE SPECIFIED		MATERIAL:		TITLE: CIRCULATOR, COAXIAL	
BY ALL OVER		FINISH:		SHEET: 1 OF 1	
NOTE: THIS DWG INCORPORATES THIRD ANGLE PROJECTION		WEIGHT: _____		DWG. NO. 3A2BV	
		PATE: _____		SIZE: C	
		USED ON: _____			