

**Date**

31-Oct-2012

**Technician**

Dave Typinski, AJ4CO

**Test Equipment**

Array Solutions VNA-2180 vector network analyzer, S/N 5249  
Acer Aspire 5570Z laptop computer  
VNA software version 530D

**Device(s) Under Test**

Buxcomm 16:1 balun, P/N B15C161  
Balun #2  
Balun Designs custom dual 16:1 balun, Side 1 — with 800 Ω resistor across ant. terminals of Side 2 and 50 Ω resistor on coax output of Side 2  
Balun #4  
Buxcomm 800 Ω resistor, P/N BTRX800  
Resistor #2 (Measured at 803 Ω)  
TFD Antenna, N-S orientation, top wire height 9'2", 30' length, 8" wire spacing

**Test Results Directory**

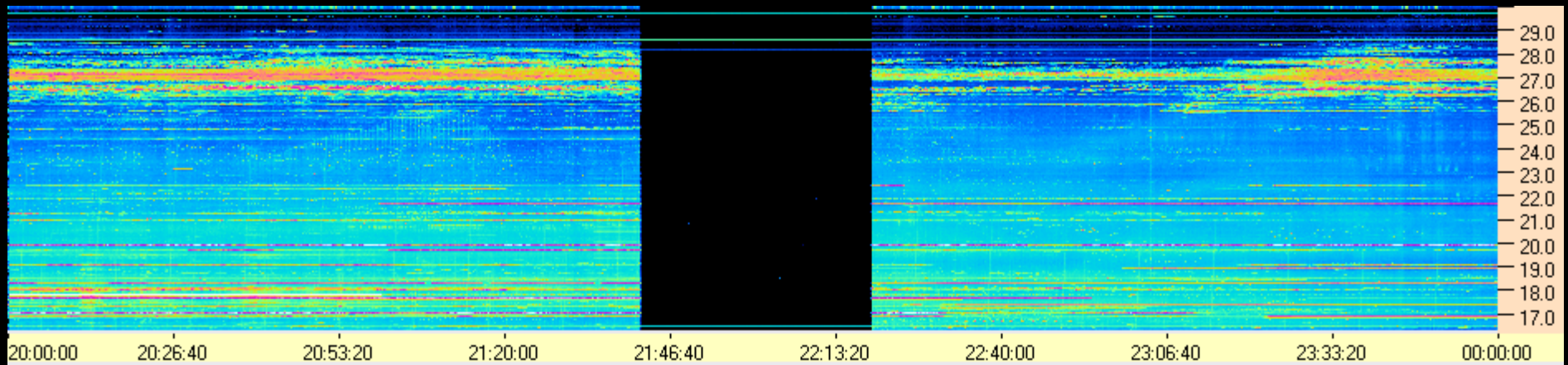
Test No.	Date	Calibration File	Data File	Calibration Plane	Notes
1	9/9/12	Cal 27.acal	Cal 27 - End of long RG-58.csv	End of 90' RG-58	Calibration sweep
2	"	"	TFD #1 - at feed point.csv †	"	
3	"	Cal 26.acal	none	VNA Port A	Calibration check sweep
4	"	"	TFD #1 - at end of long RG-58.csv	"	
5	"	"	TFD #1 - at end of RG-58 & Arrestor & LMR-400.csv	"	
6	10/31/12	Cal 30.acal	00 Cal Check.csv	End of 90' RG-58	Calibration sweep
7	"	"	01 Old Balun.csv †	"	
8	"	"	New Dual Balun Side 1.csv †	"	

† Indicates data plotted on following pages

# TFD Feed point, Balun, and Terminator — October, 2012



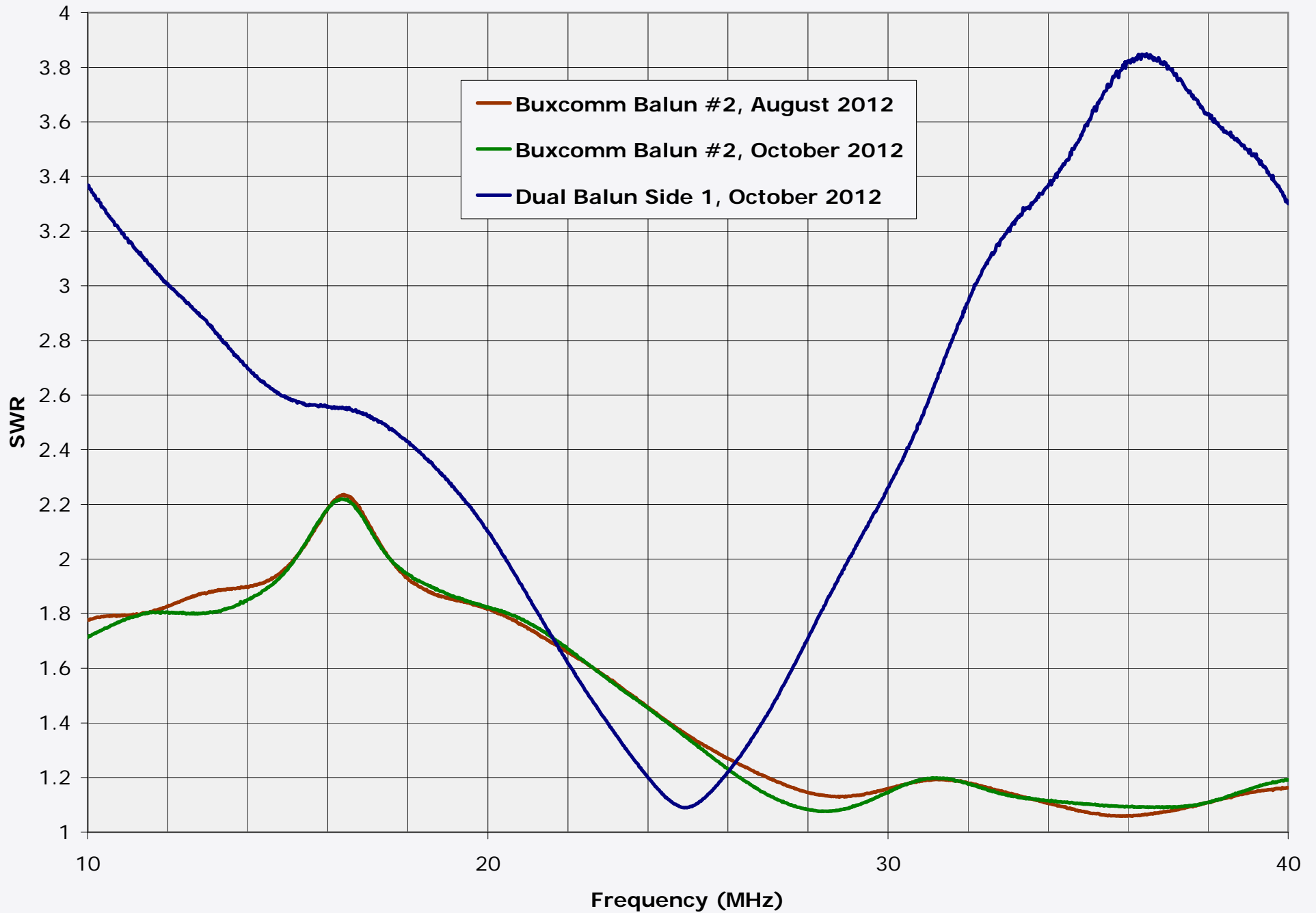
## Balun Comparison Using FS-200 Spectrograph



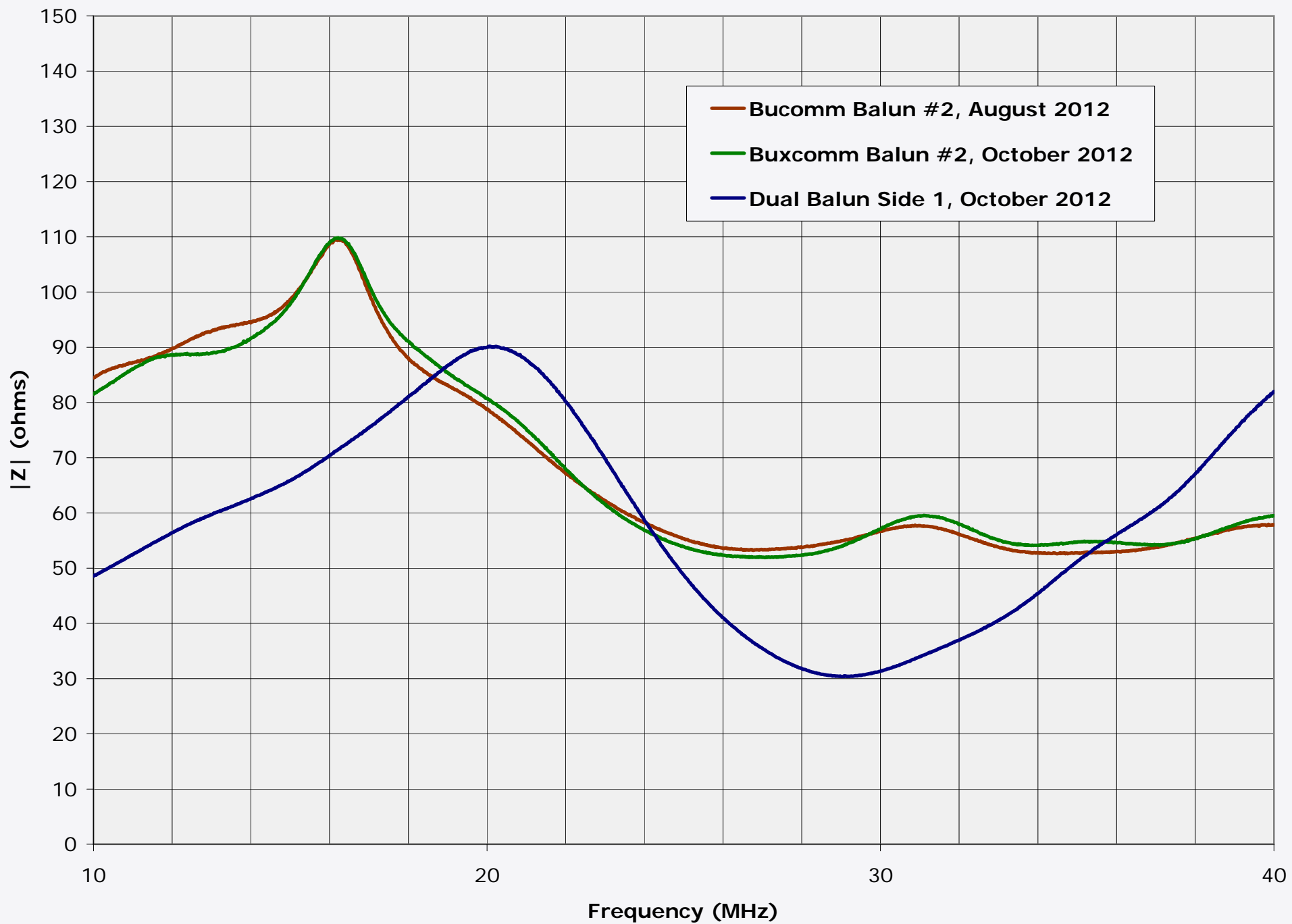
**Buxcomm Balun**

**Balun Designs Dual Balun Side 1**

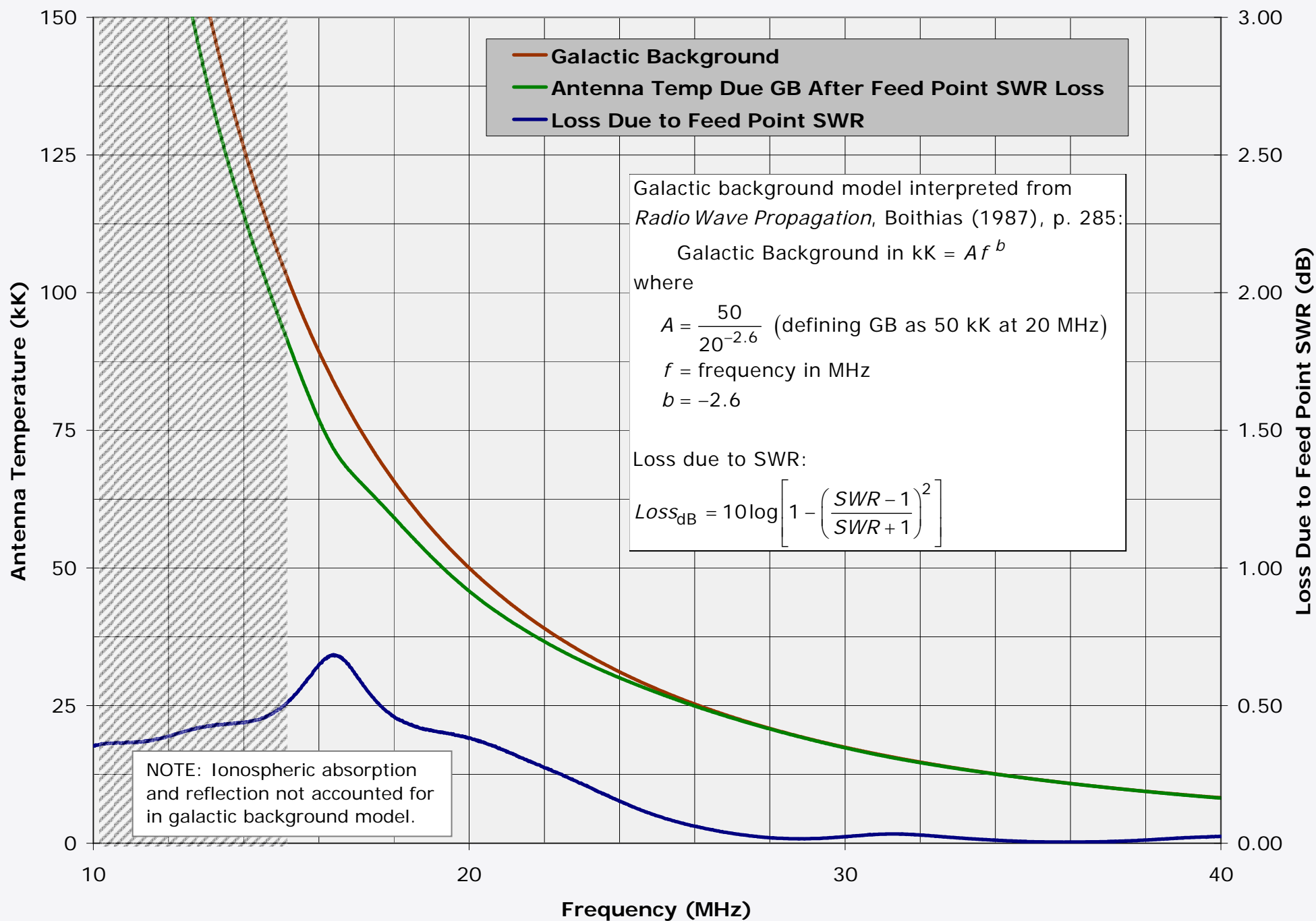
# TFD #1 — SWR



# TFD #1 — |Z|

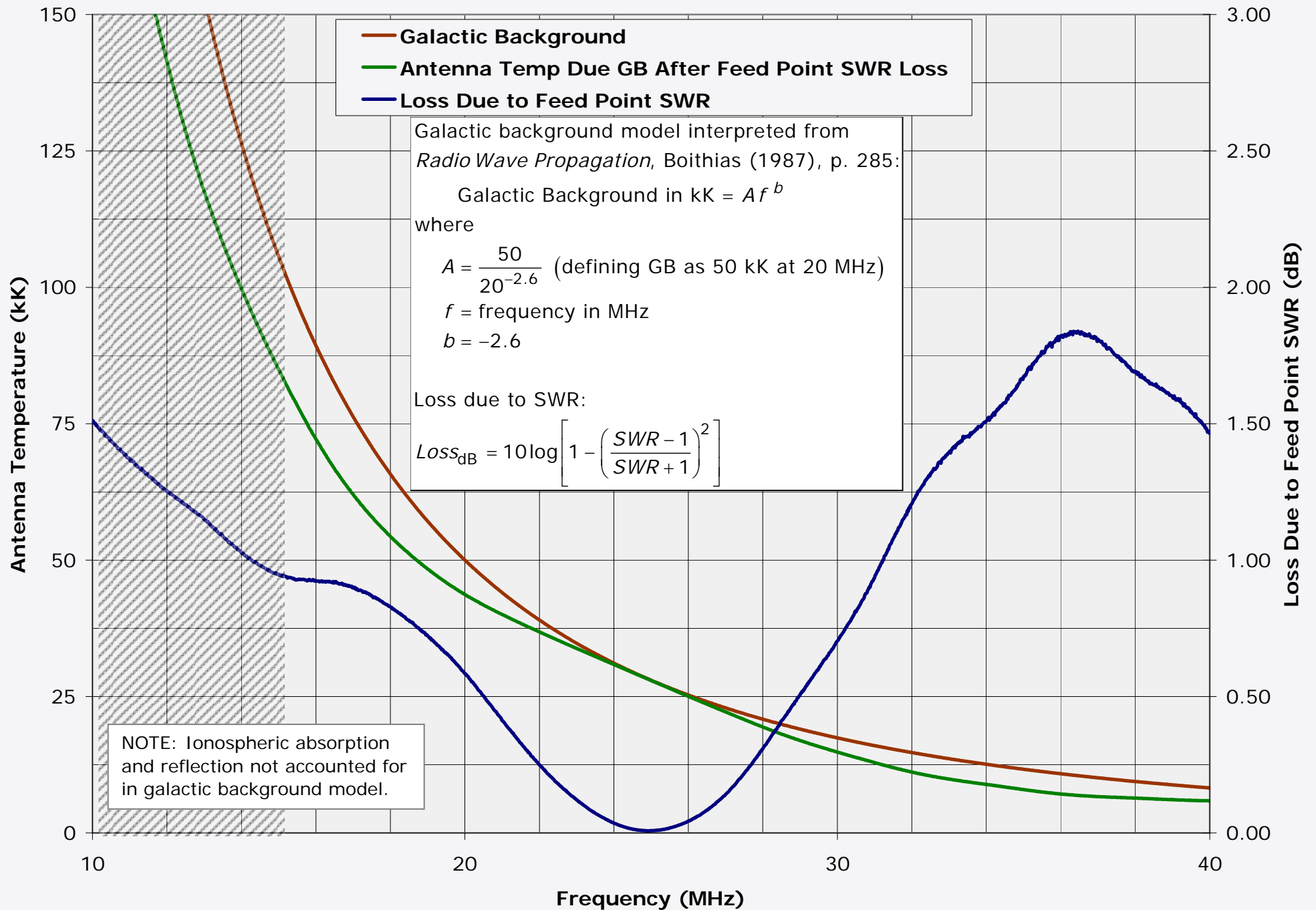


## Predicted Galactic Background based on Measured Feed Point SWR — Buxcomm #2





# Predicted Galactic Background based on Measured Feed Point SWR — Dual Balun Side 1



# GB Antenna Temperature Comparison — Buxcomm Balun & Dual Balun Side 1

