NV8300 series Transmitter FCC Certification Application

Class 2 Permissive Change to Allow the Use of Alternate Channel "Mask" Filter

TECHNICAL SPECIFICATIONS

AND

MEASUREMENT REPORT

FOR

PROPOSED ALTERNATE

MYAT 12-POLE CHANNEL "MASK" FILTER

Manufacturer: Myat, Inc.
Filter Division
1000 Riverside Street
Portland, ME 04103

Catalog Number: PJ000589-1

5 September 2008

MYAT, INC.

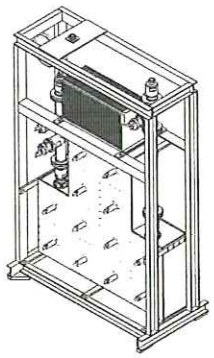
Broadcast Transmission Line Systems, Filters & Components

FACTORY TEST DATA

(re-tuned after power tests were conducted in Germany MAR08)

12 SECTION "STRINGENT" BANDPASS FILTER

CH 55



MediaFLO USA, Inc.
P.O. 2100000663 2.1

MYAT ORDER: 218041-02-02

MARCH 25 , 2008

MYAT REPORT NO. 2521
(old Report 2434)

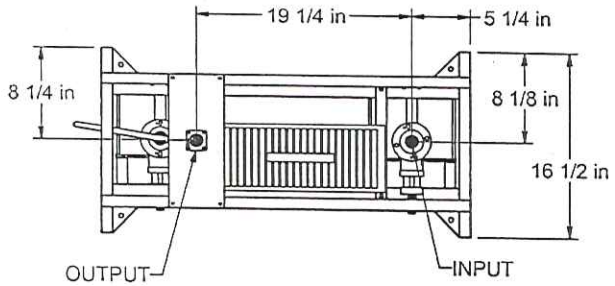
Filter Division:
1000 Riverside Street
Portland, ME 04103
Tel: 207-878-7807
Fax: 207-878-7806

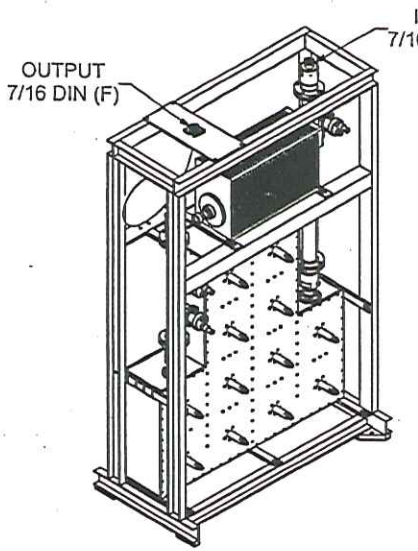
www.myat.com

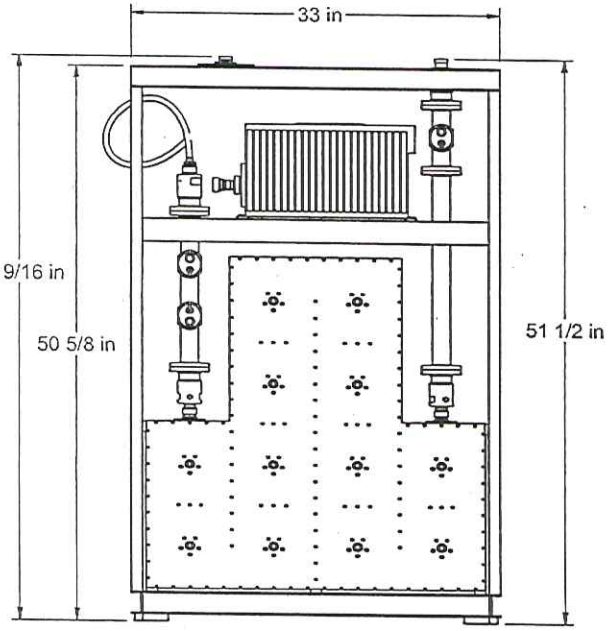
Corporate Office:
380 Chestnut Street
PO Box 425
Norwood, NJ 07648-0425
Tel: 201-767-5380
Fax: 201-767-4147

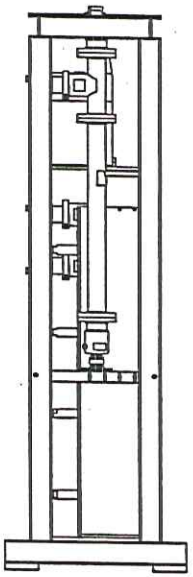
----- INDEX -----

FIGURE	DESCRIPTION
A	ASSEMBLY DRAWING
1	VSWR & RETURN LOSS
2	REJECTION & INSERTION LOSS
3	GROUP DELAY
4	HARMONICS
5	COUPLER MEASUREMENTS









CATALOG : #PJ000589-1

NOTES:

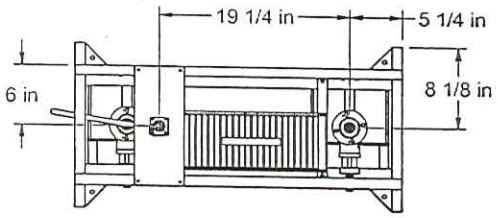
1. LOAD TO BE SUPPLIED AND INSTALLED BY TBM.
   BIRD LOAD 8251 (w/ TYPE -N (M) CONNECTOR P/N 4240-063)
2. 12 SECTION FILTER SUPPLIED BY QUALCOMM.

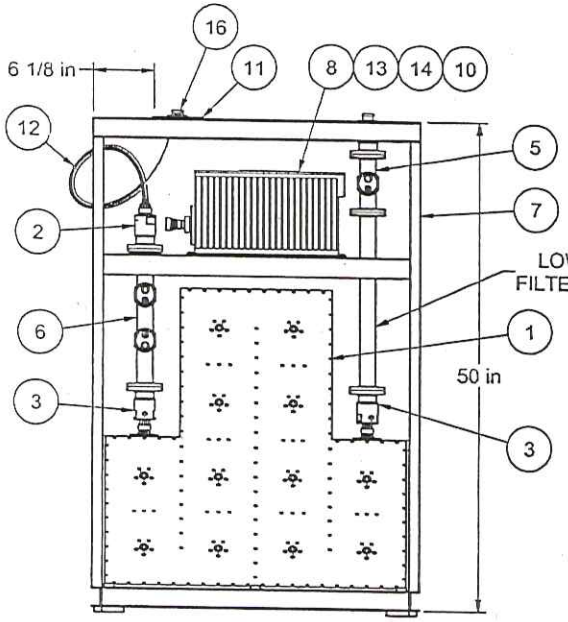
Specification :

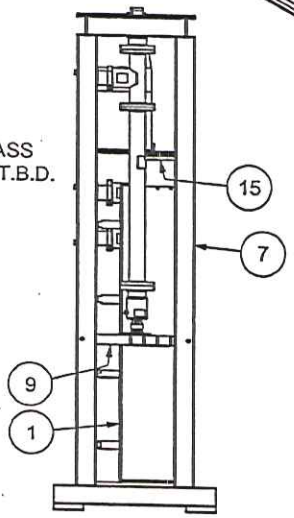
Insertion Loss	< .85dB @ fo
Loss Variation	< 3dB +/- 2.71MHz
VSWR	< 1.2
Delay Variation	< 2200ns +/- 2.71MHz
Rejection	> 35dB fo +/- 3MHz to fo +/- 3.1MHz
	> 52dB fo +/- 3.1MHz to fo +/- 4MHz
	> 57dB fo +/- 4MHz to fo +/- 10MHz
Input Coupler	Bi-Directional, single
Coupling	- 36dB +/- .5dB
Directivity	- 20dB min.
Ouput Coupler	Bi-Directional, dual
Coupling	- 36dB +/- .5dB, each coupler
Directivity	- 20dB min.
Harmonic Suppression	
2nd	≥ 50dB (1396-1492MHz)
3rd	≥ 50dB (2094-2238MHz)
Power	800W
Ambient Temperature	0 deg. - 50 deg. C

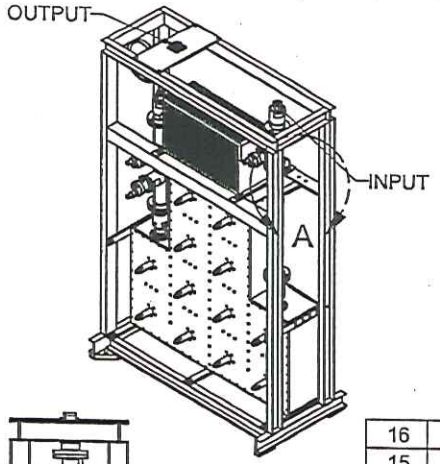
MYAT INC 380 CHESTNUT ST. NORWOOD, N.J.

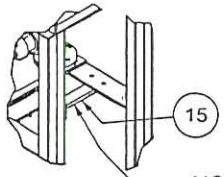
CAGE IDENT NO. 28035	DRAWN elacasse	DATE 1/26/2007	
	CHECKED DS	DATE 1/26/2007	
	ENGINEER DS	DATE 1/26/2007	
QUALCOMM 12 SECTION FILTER FRAME	SIZE B	SHEET 1 OF 1	SALES DRAWING NO. PJ000589-1
		SCALE	COMPUTER FILE NAME PJ000589-1 Rev.1.idw
			REVISION 1











DETAIL A

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
1	ORIGINAL ISSUE, 26-JAN-07 EL.	26-Jan-07	DS
2	PRE-DRILLED FRAME, 12-FEB-07 EL.	12-Feb-07	DS

NOTES:

BIRD ELECTRONICS ITEMS ARE REFERENCE ONLY - TO BE SUPPLIED BY CUSTOMER.

- 4240-063 TYPE-N (M), BIRD ELECTRONICS MODEL
- 8251 LOAD, BIRD ELECTRONICS, TYPE-N-

ITEM	QTY	PART NUMBER	DESCRIPTION
16	1	DBB0A001	DIN. (F) to DIN (F) BULK HEAD, 7/16 ACORN
15	2	536-638	FRAME, 1 5/8 SUPPORT ARM ASSEMBLY
14	1	2234-000-A001-122	7/16 PLUG-N JACK, DELTA P/N 2234-000-A001-122
13	1	4240-063	TYPE-N (M), BIRD ELECTRONICS MODEL 4240-063
12	1	JBB0-F012-AA10	7/16 CABLE, MALE/MALE, JUMPER, 1/2 FOAM, 1 METER, TERACOM P/N JBB0-F012-AA10
11	1	536-629	FRAME, 7/16 DIN CONNECTOR MOUNTING PLATE
10	2	536-628	FRAME, LOAD MOUNTING BAR
9	5	536-627	FRAME, UPRIGHT SUPPORT MEMBER
8	1	8251	BIRD ELECTRONICS, TYPE -N-, MODEL 8251
7	1	536-626	FRAME, QUALCOMM 12 SECTION FILTER SYSTEM
6	1	201-356-2-000	Assembly, 1 5/8" UHF Dual Directional Coupler
5	1	201-440-1-000	ASSEMBLY, 1 5/8" UHF SINGLE DIRECTIONAL COUPLER
4	1	201-002-18.00	1 5/8" TRANS. LINE
3	2	201-058-2	REDUCER 1 5/8" TO 7/16 DIN MALE
2	2	201-058-1	REDUCER 1 5/8" TO 7/16 DIN FEMALE
1	1	510-286	QUALCOMM 12 SECTION FILTER

Parts List

DASH No.	NEXT ASSY	USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ON

FRACTIONS	DECIMALS	ANGLES
±1/32	.XX=±.010	±1/2°
	.XXX=±.005	

REMOVE ALL BURRS

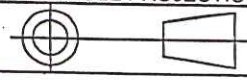
BREAK ALL SHARP EDGES

MATERIAL:

FINISH:

DRAWN	elacasse	DATE 1/26/2007
CHECKED	DS	DATE 1/26/2007
ENGINEER	DS	DATE 1/26/2007
CONTRACT NO.		
DATE		

THIRD ANGLE PROJECTION

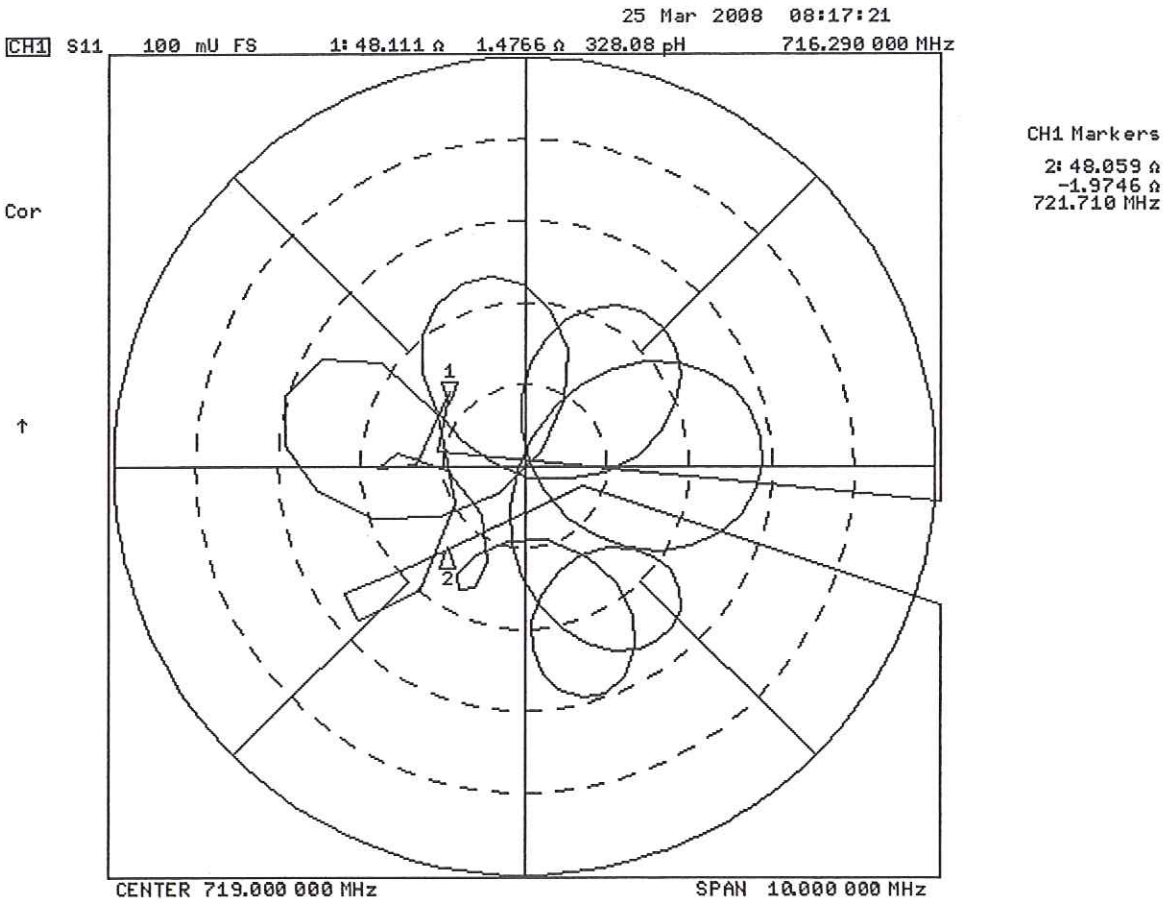


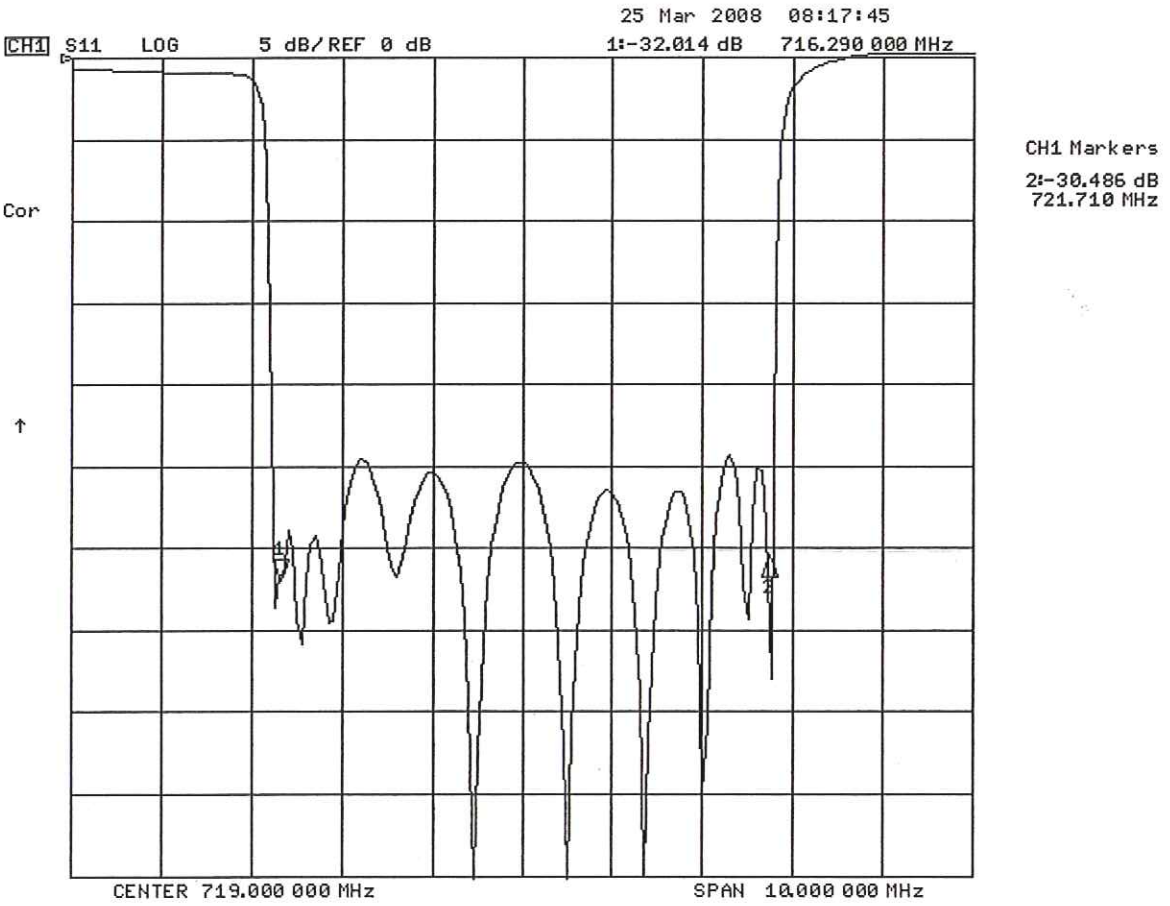
MYAT INC. 380 CHESTNUT ST. NORWOOD, N.J.

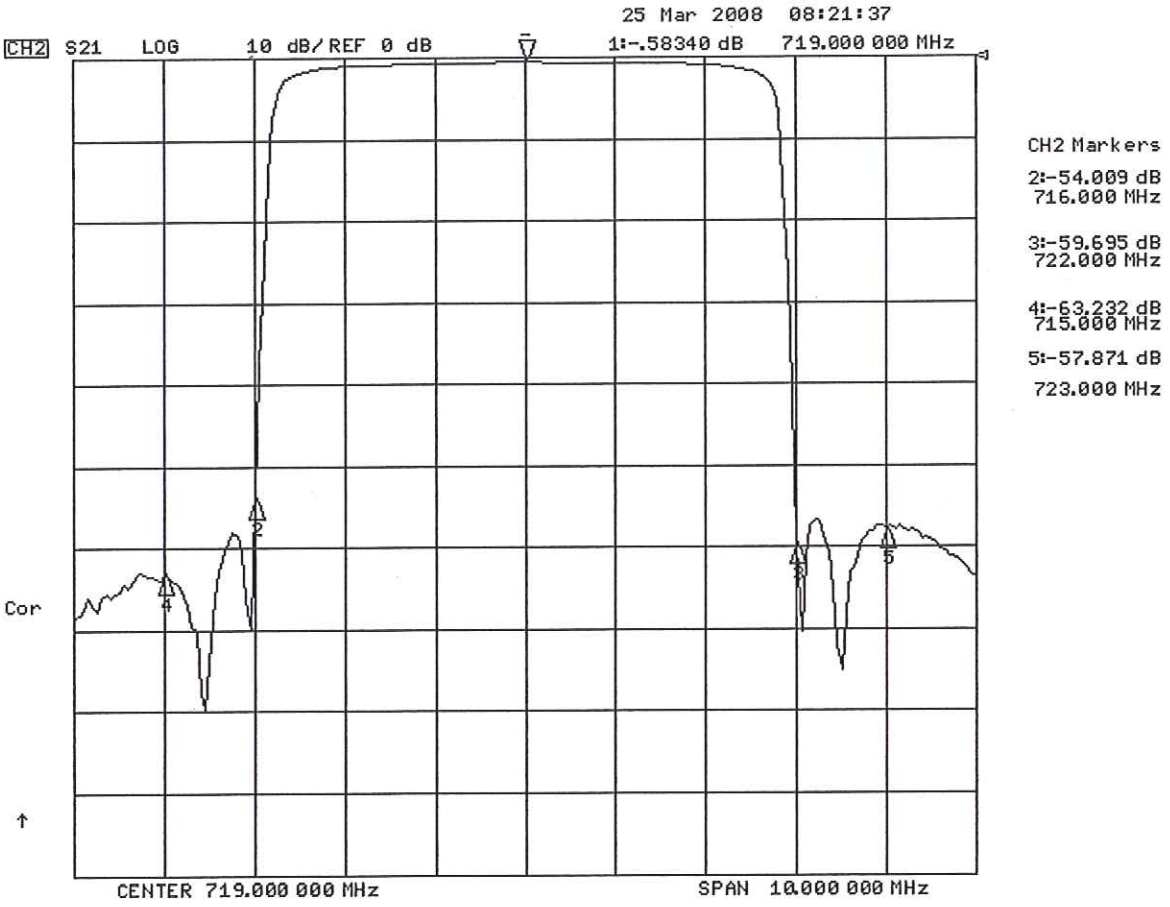
QUALCOMM 12 SECTION FILTER SYSTEM

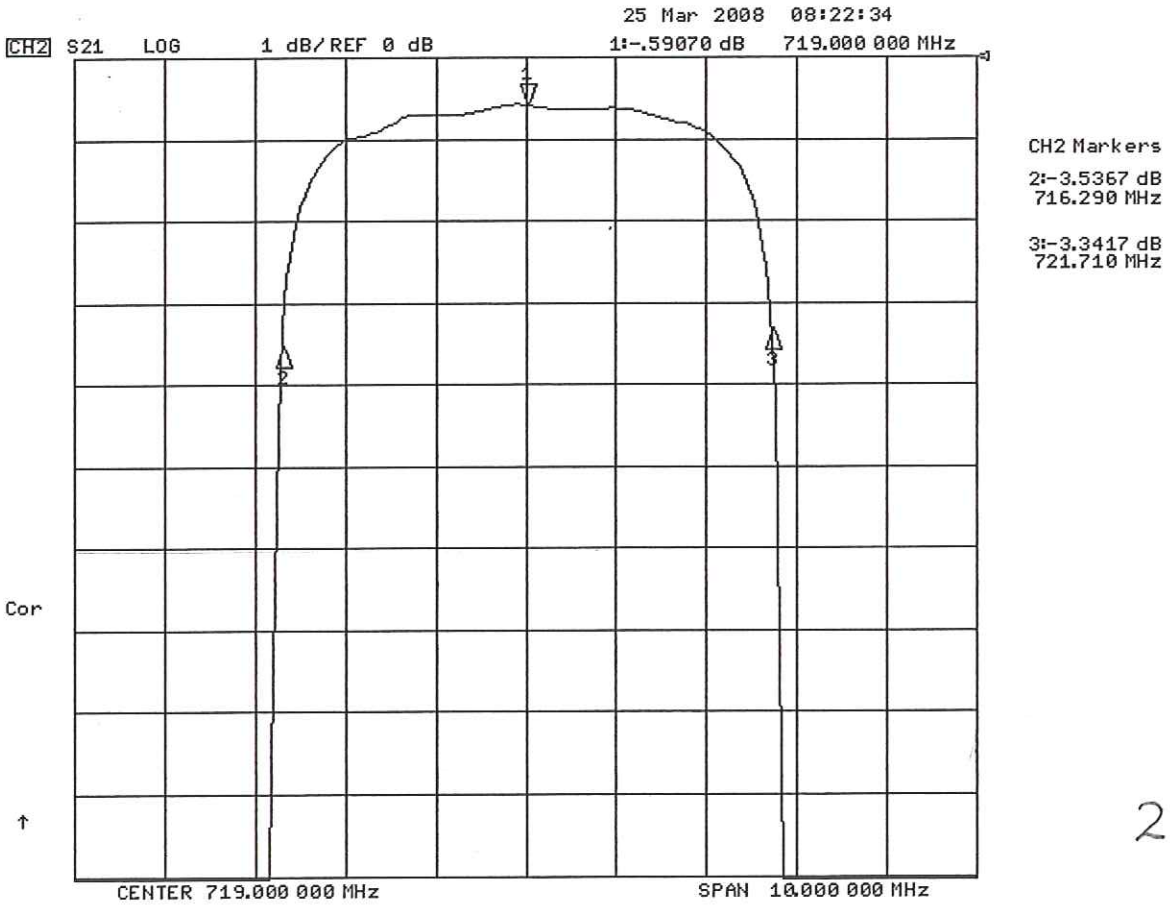
SIZE	CAGE IDENT NO.	DRAWING NO.	REV
B	28035	510-302	2

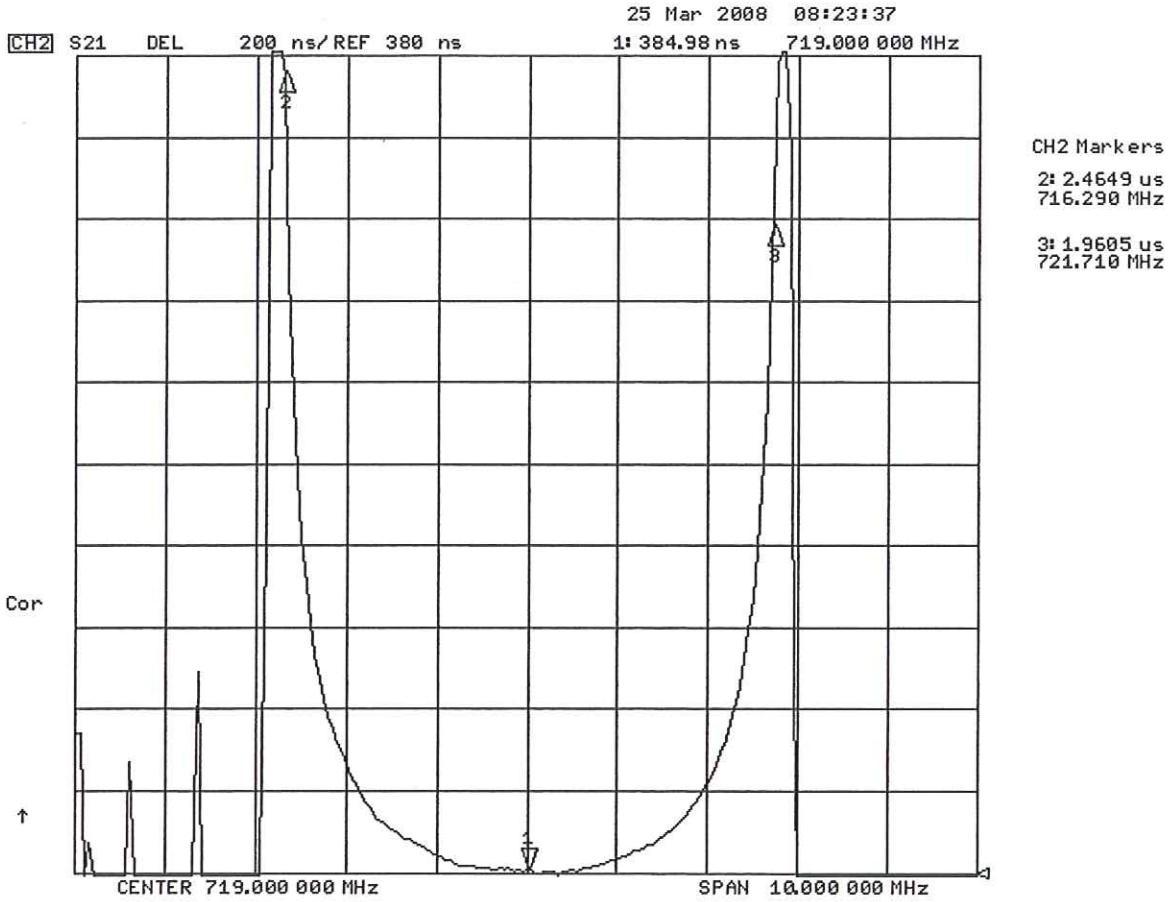
SCALE | CFN 510-302.idw | SHEET 1 OF 1

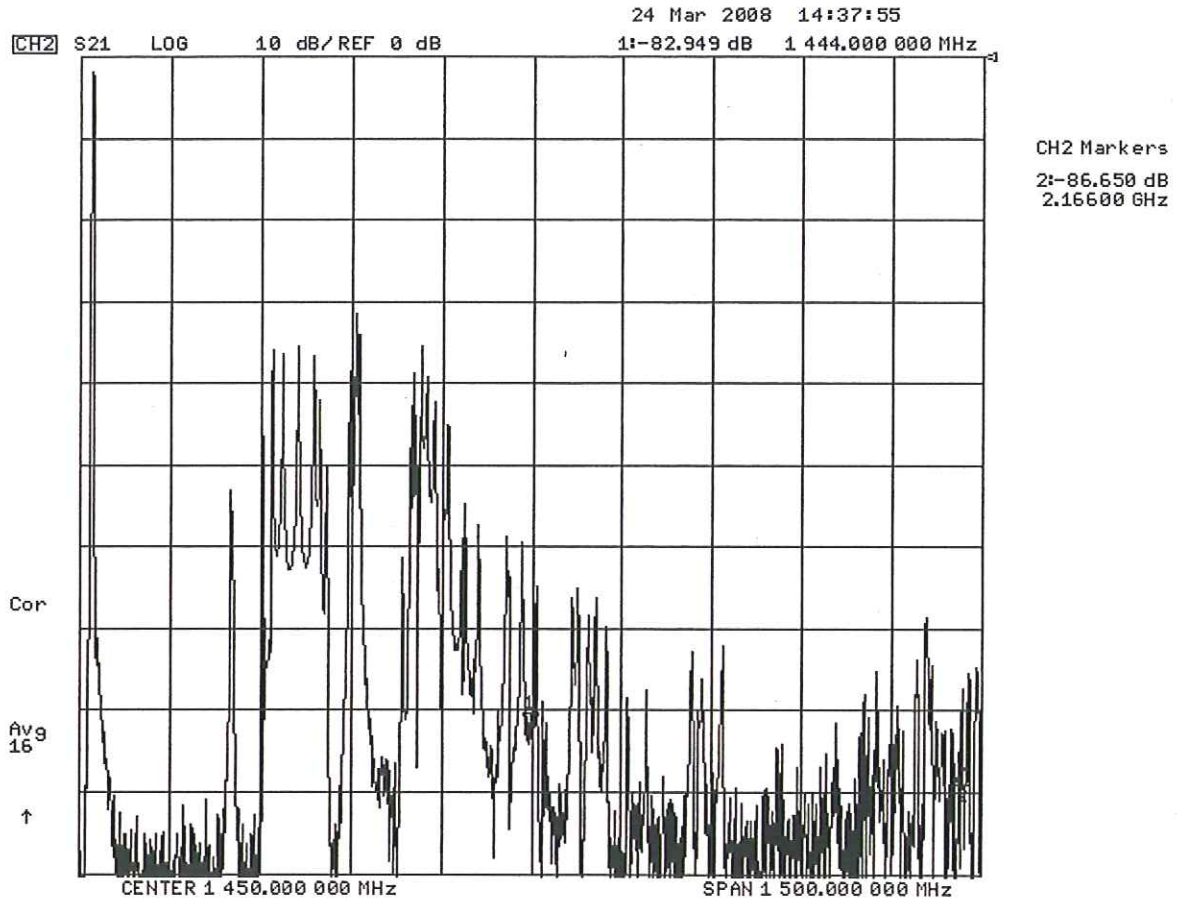

25 Mar 2008 08:17:21
CH1 S11 100 mU FS 1: 48.111 Ω 1.4766 Ω 328.08 pH 716.290 000 MHz
Cor
CH1 Markers
2: 48.059 Ω
-1.9746 Ω
721.710 MHz
CENTER 719.000 000 MHz
SPAN 10.000 000 MHz


25 Mar 2008 08:17:45
CH1 S11 LOG 5 dB/ REF 0 dB 1:-32.014 dB 716.290 000 MHz
Cor
CH1 Markers
2:-30.486 dB
721.710 MHz
CENTER 719.000 000 MHz
SPAN 10.000 000 MHz


25 Mar 2008 08:21:37
CH2 S21 LOG 10 dB/ REF 0 dB
1:-.58340 dB 719.000 000 MHz
CH2 Markers
2:-54.009 dB
716.000 MHz
3:-59.695 dB
722.000 MHz
4:-63.232 dB
715.000 MHz
5:-57.871 dB
723.000 MHz
Cor
CENTER 719.000 000 MHz
SPAN 10.000 000 MHz


25 Mar 2008 08:22:34
CH2 S21 LOG 1 dB/ REF 0 dB
1:-.59070 dB 719.000 000 MHz
CH2 Markers
2:-3.5367 dB
716.290 MHz
3:-3.3417 dB
721.710 MHz
Cor
CENTER 719.000 000 MHz
SPAN 10.000 000 MHz

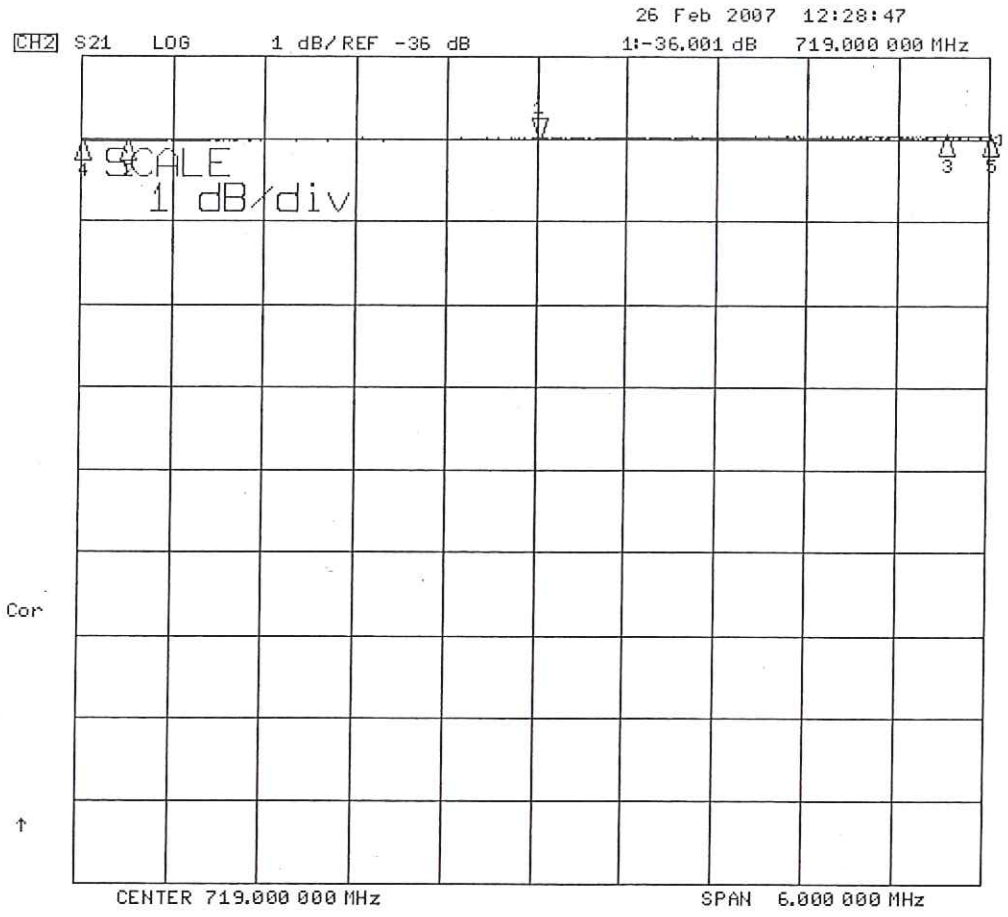

25 Mar 2008 08:23:37
CH2 S21 DEL 200 ns/ REF 380 ns
1: 384.98 ns 719.000 000 MHz
CH2 Markers
2: 2.4649 us
716.290 MHz
3: 1.9605 us
721.710 MHz
Cor
CENTER 719.000 000 MHz
SPAN 10.000 000 MHz


24 Mar 2008 14:37:55
CH2 S21 LOG 10 dB/ REF 0 dB
1:-82.949 dB 1 444.000 000 MHz
CH2 Markers
2:-86.650 dB
2.16600 GHz
Cor
Avg
16
CENTER 1 450.000 000 MHz
SPAN 1 500.000 000 MHz

1449

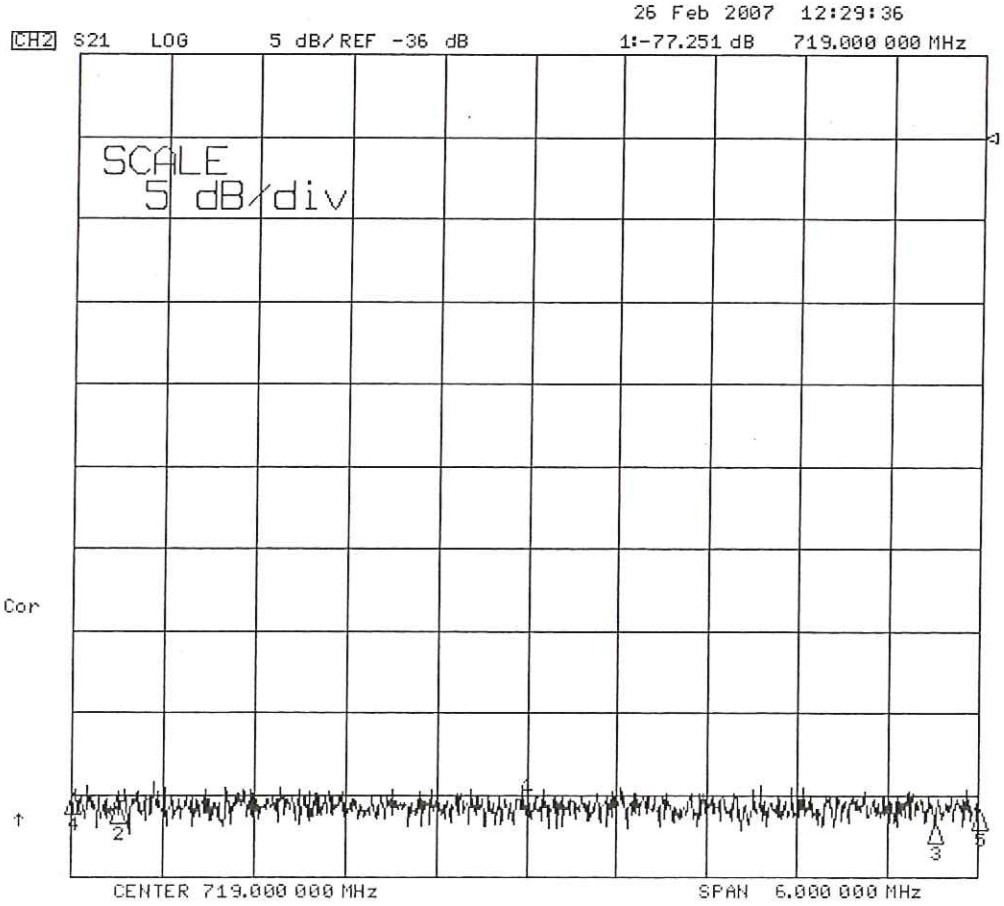
MEDIAFLO 12 SECTION
UNITIZED FILTER

DC1
(FWD)



CH2 Markers
2:-36.034 dB
716.290 MHz
3:-35.966 dB
721.710 MHz
4:-36.032 dB
716.000 MHz
5:-35.973 dB
722.000 MHz

COUPLING

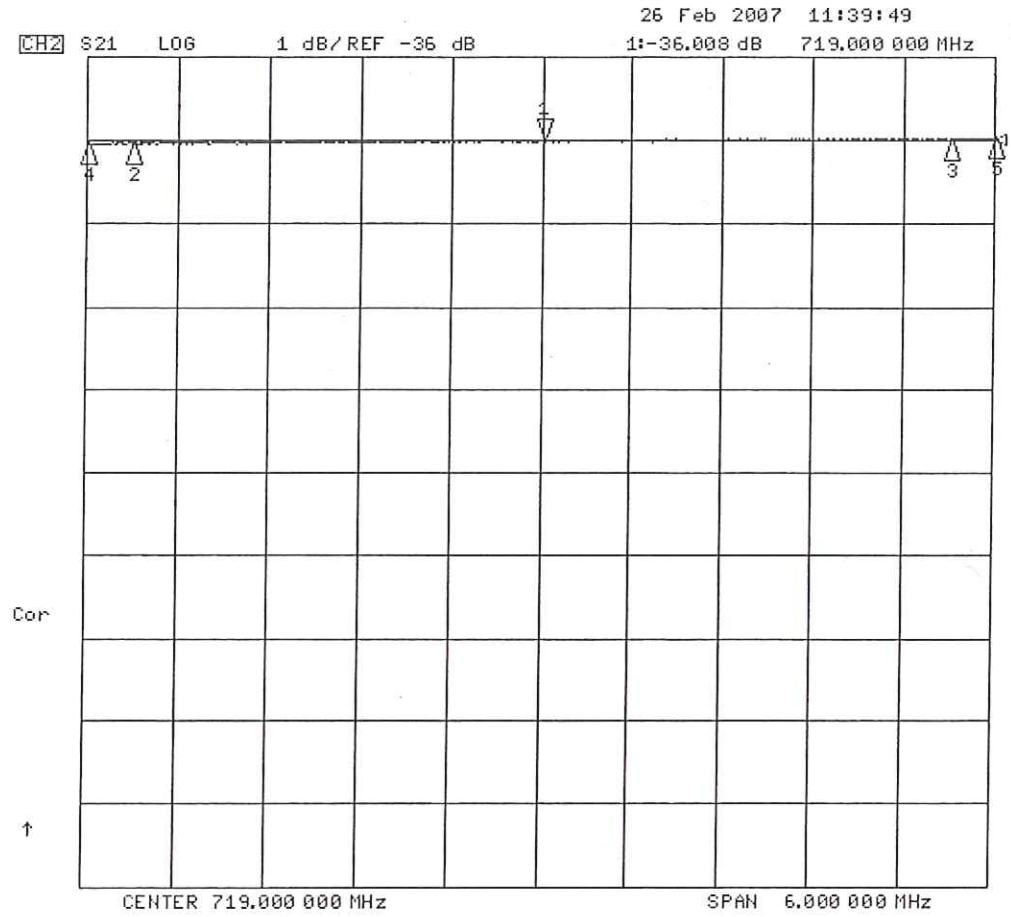


CH2 Markers
2:-76.567 dB
716.290 MHz
3:-77.765 dB
721.710 MHz
4:-76.032 dB
716.000 MHz
5:-76.946 dB
722.000 MHz

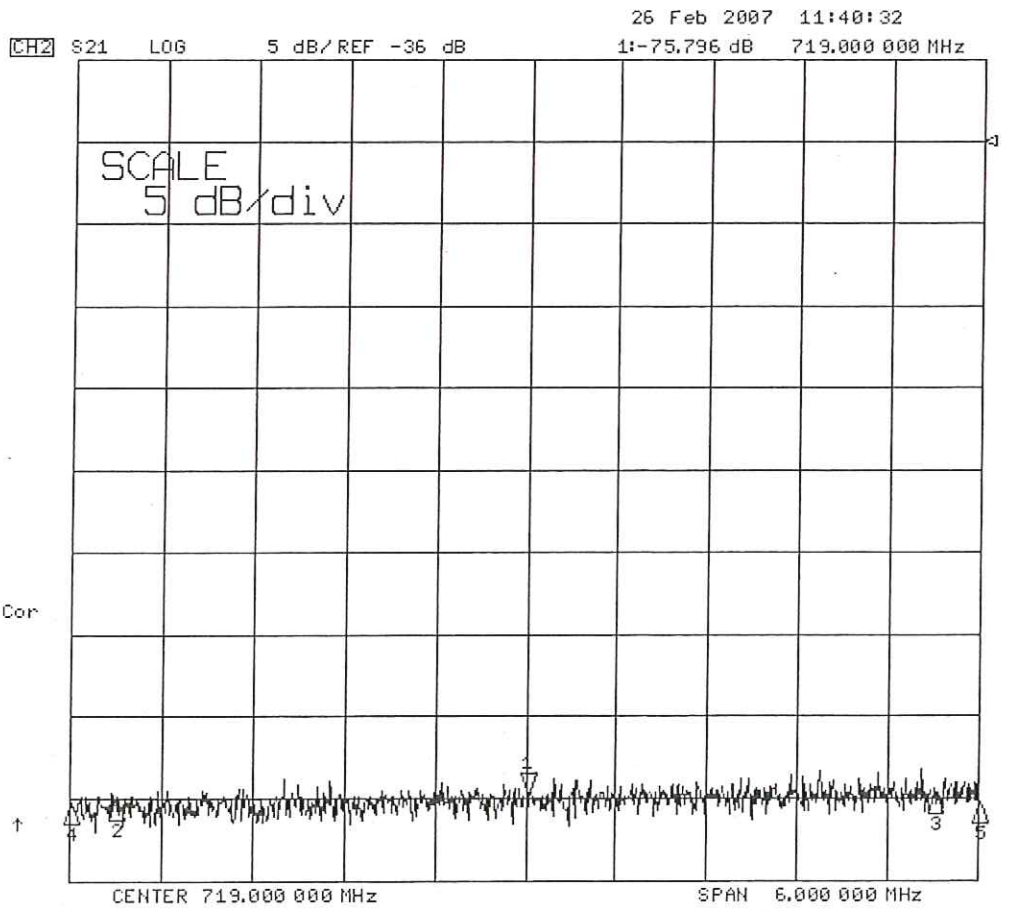
DIRECTIVITY

1449

MEDIAFLO 12 SECTION UNITIZED FILTER DC2 (FWD)



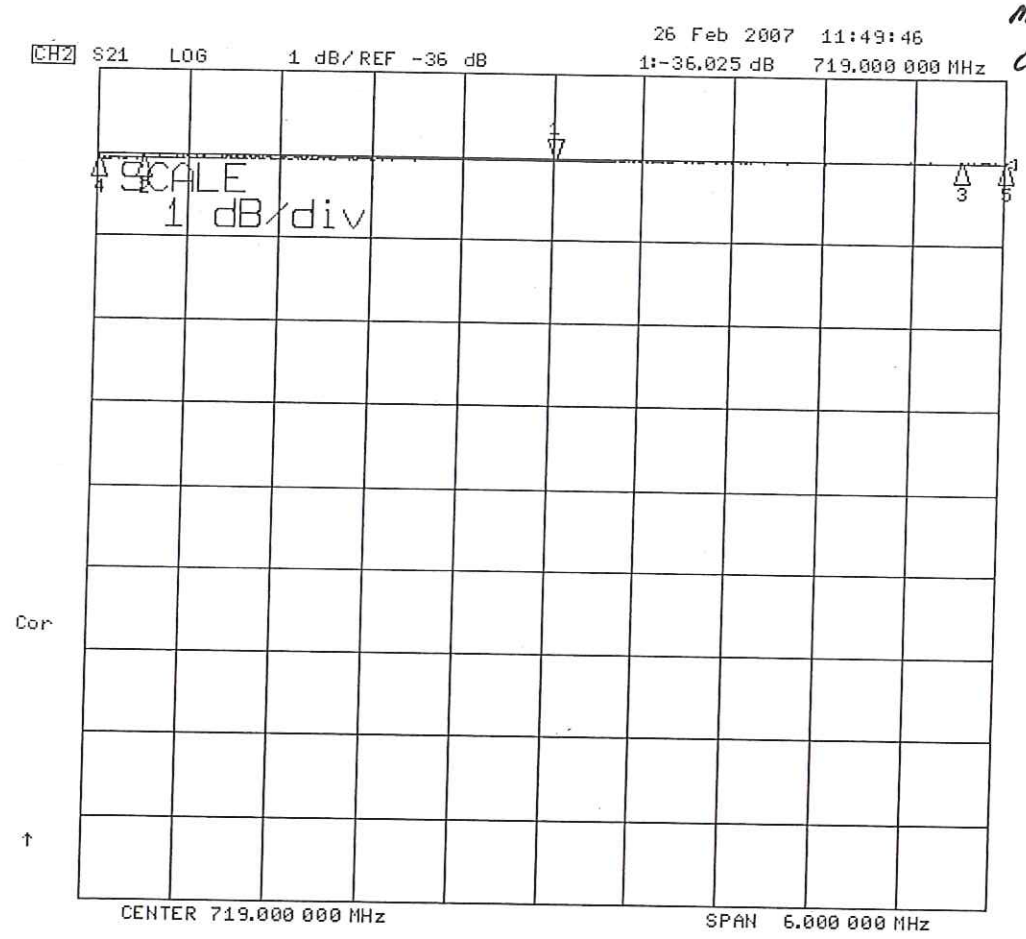
COUPLING



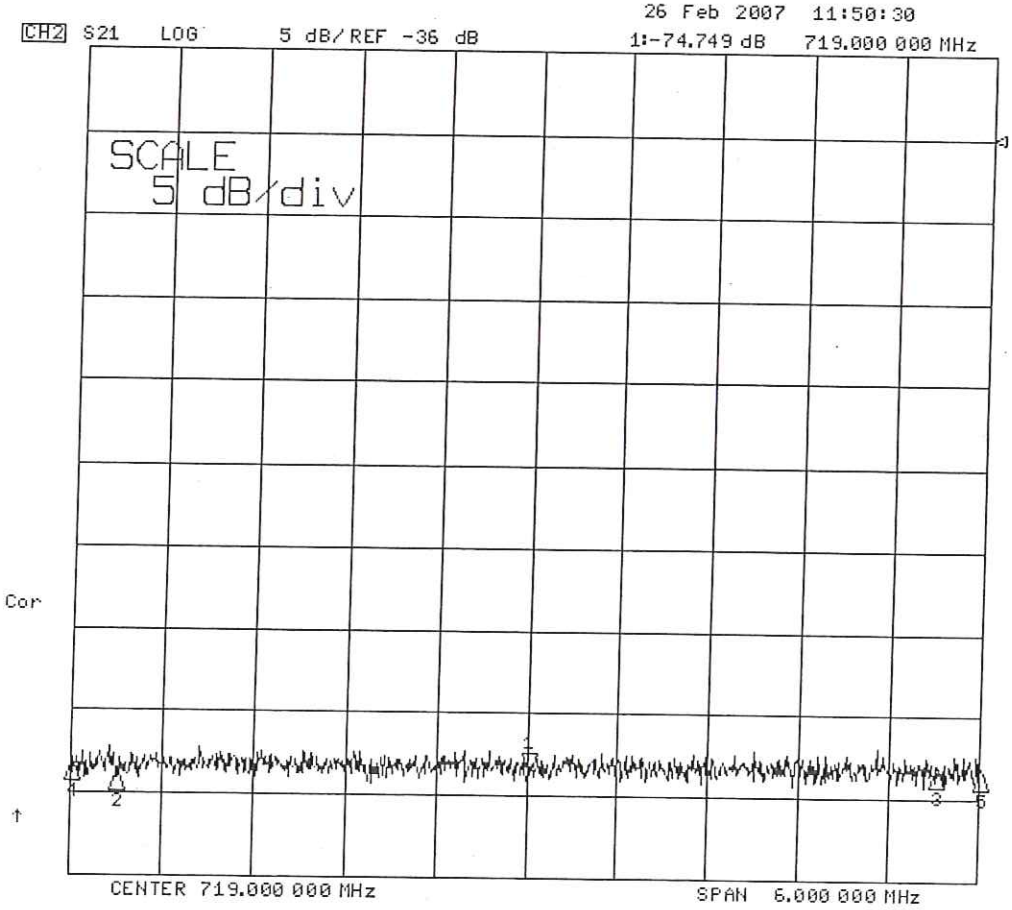
DIRECTIVITY

1449

MEDIAFLO 12 SECTION UNITIZED FILTER DC3 (REV)



COUPLING



DIRECTIVITY