

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:

RF Power Output

Customer:

Cellular Specialties, Inc.

Job No:

R-4067N

Test Sample:

Bidirectional Amplifier

Model No:

565SMR

Serial No:

SMR2

Test Specification:

FCC Part 2

Paragraph: 2.1046

Operating Mode:

Amplifying input signal

Technician:

T. Firkowski

Date:

12/6/02

Notes:

Uplink Frequency: 813.5 MHz

Downlink Frequency: 858.5 MHz

[illegible]

12:32:33 DEC 06, 2002

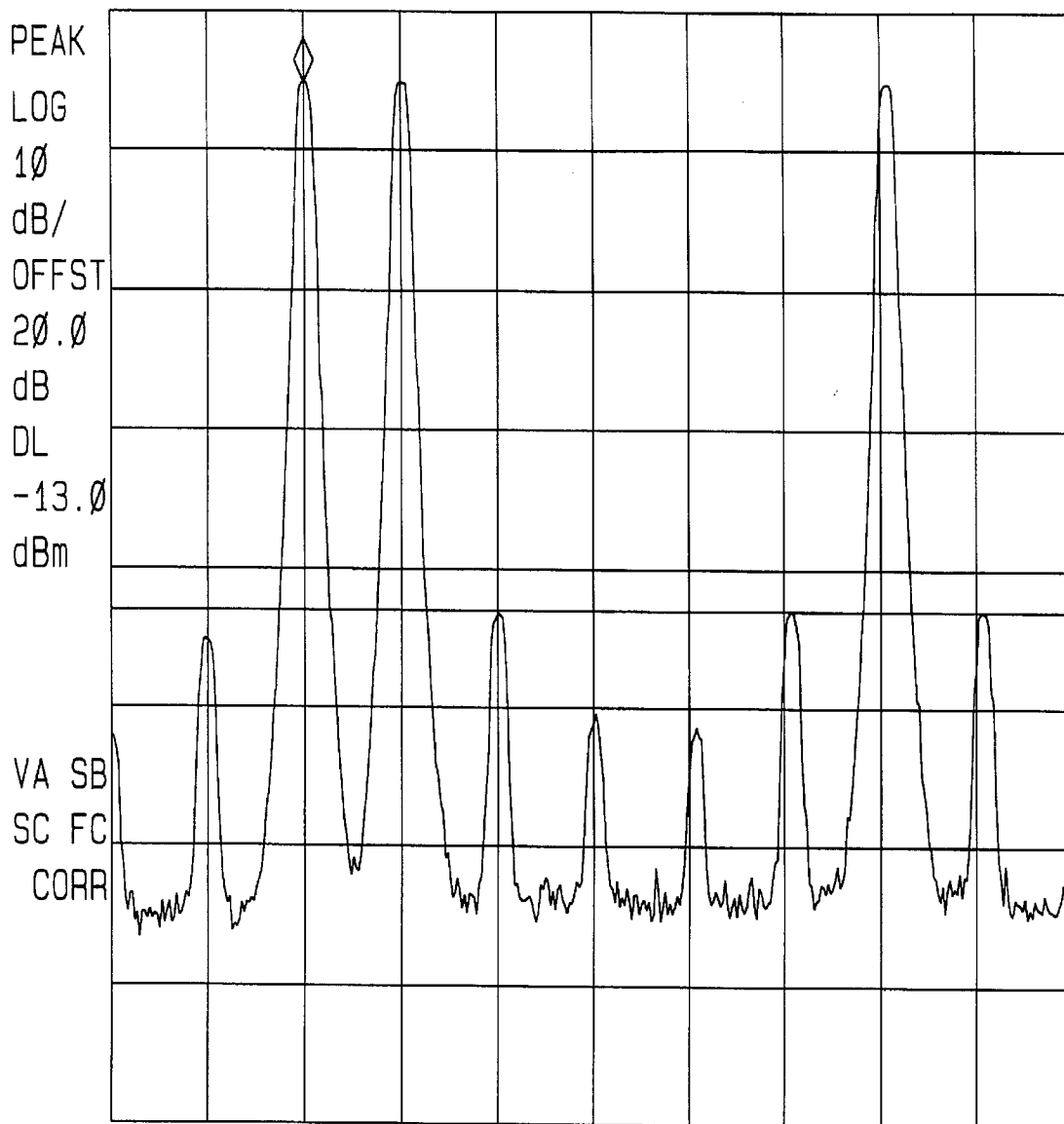
hp

MKR 809.00 MHz

REF 30.0 dBm

AT 20 dB

24.84 dBm



START 806.00 MHz

STOP 821.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Intermodulation Characteristics, FCC Part 2, para 2.1047
Notes: Uplink Frequency Range: 806-821 MHz

Date: 12/6/02

Tech: T. Firkowski

Sheet 1 of 6



Retlif Testing Laboratories

Report No R-4067N

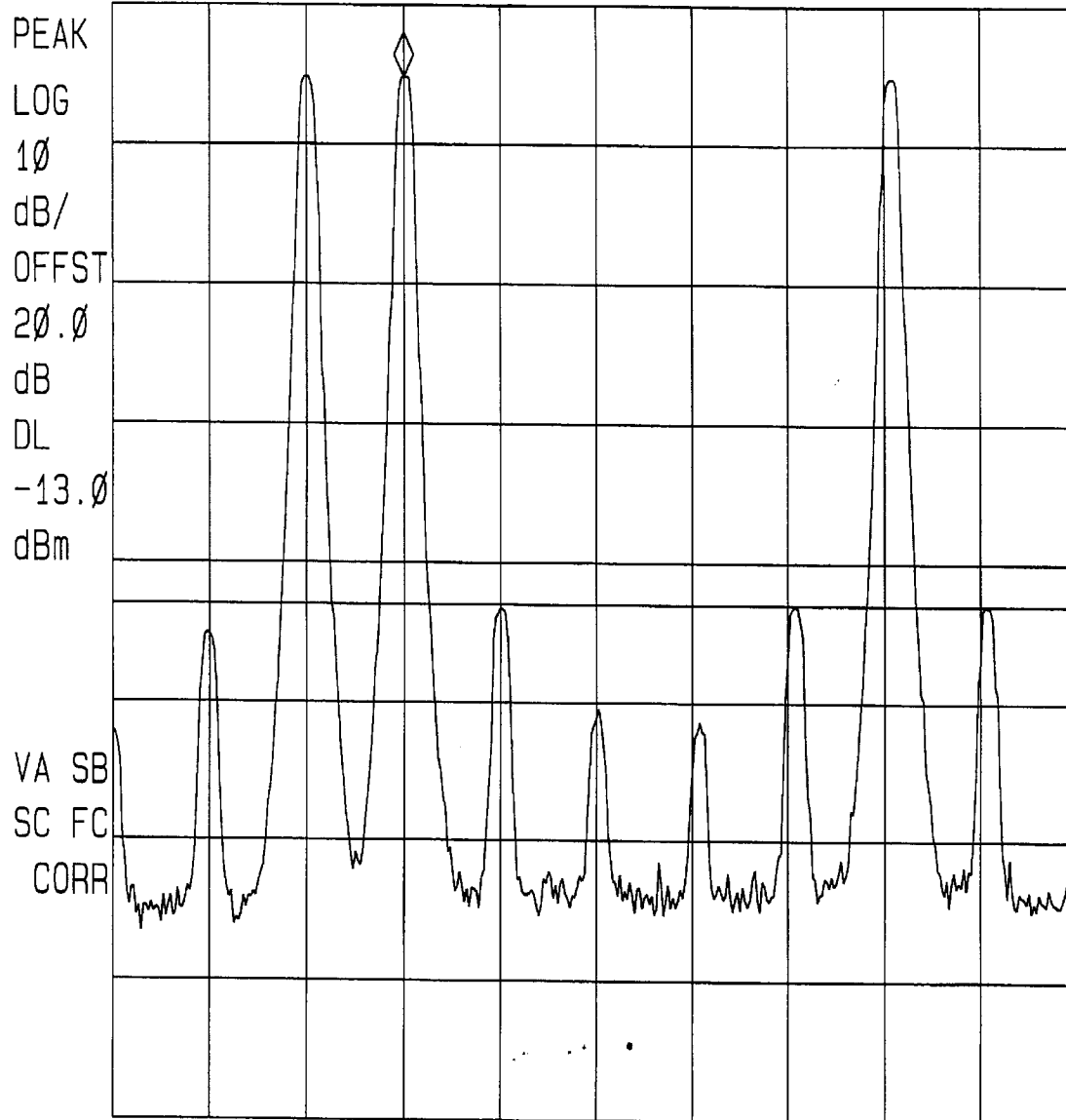
12: 32: 33 DEC 06, 2002

REF 30.0 dBm

AT 20 dB

MKR 810.50 MHz

24.84 dBm



START 806.00 MHz

STOP 821.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Intermodulation Characteristics, FCC Part 2, para 2.1047
Notes: Uplink Frequency Range: 806-821 MHz

Date: 12/6/02

Tech: T. Firkowski

Sheet 2 of 6



Retlif Testing Laboratories

Report No R-4067N

12:35:21 DEC 06, 2002

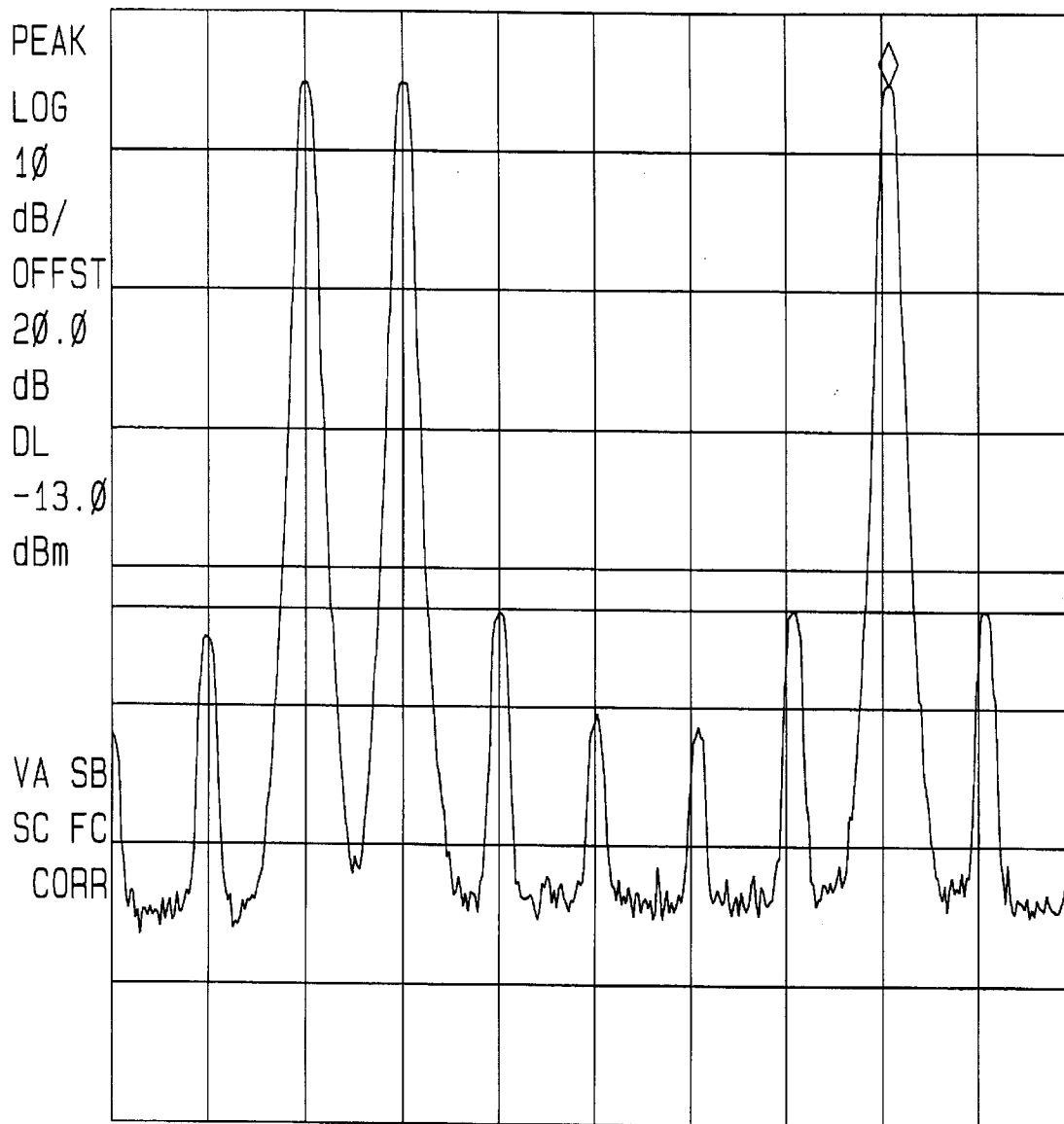
HP

MKR 818.11 MHz

REF 30.0 dBm

AT 20 dB

24.79 dBm



START 806.00 MHz

STOP 821.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer:
Test Sample:
Model No:
Test Method:
Notes:

Cellular Specialties, Inc.
Bidirectional Amplifier
565SMR
Intermodulation Characteristics, FCC Part 2, para 2.1047
Uplink Frequency Range: 806-821 MHz

Date: 12/6/02

Tech: T. Firkowski

Sheet 3 of 6



Retlif Testing Laboratories

Report No R-4067N

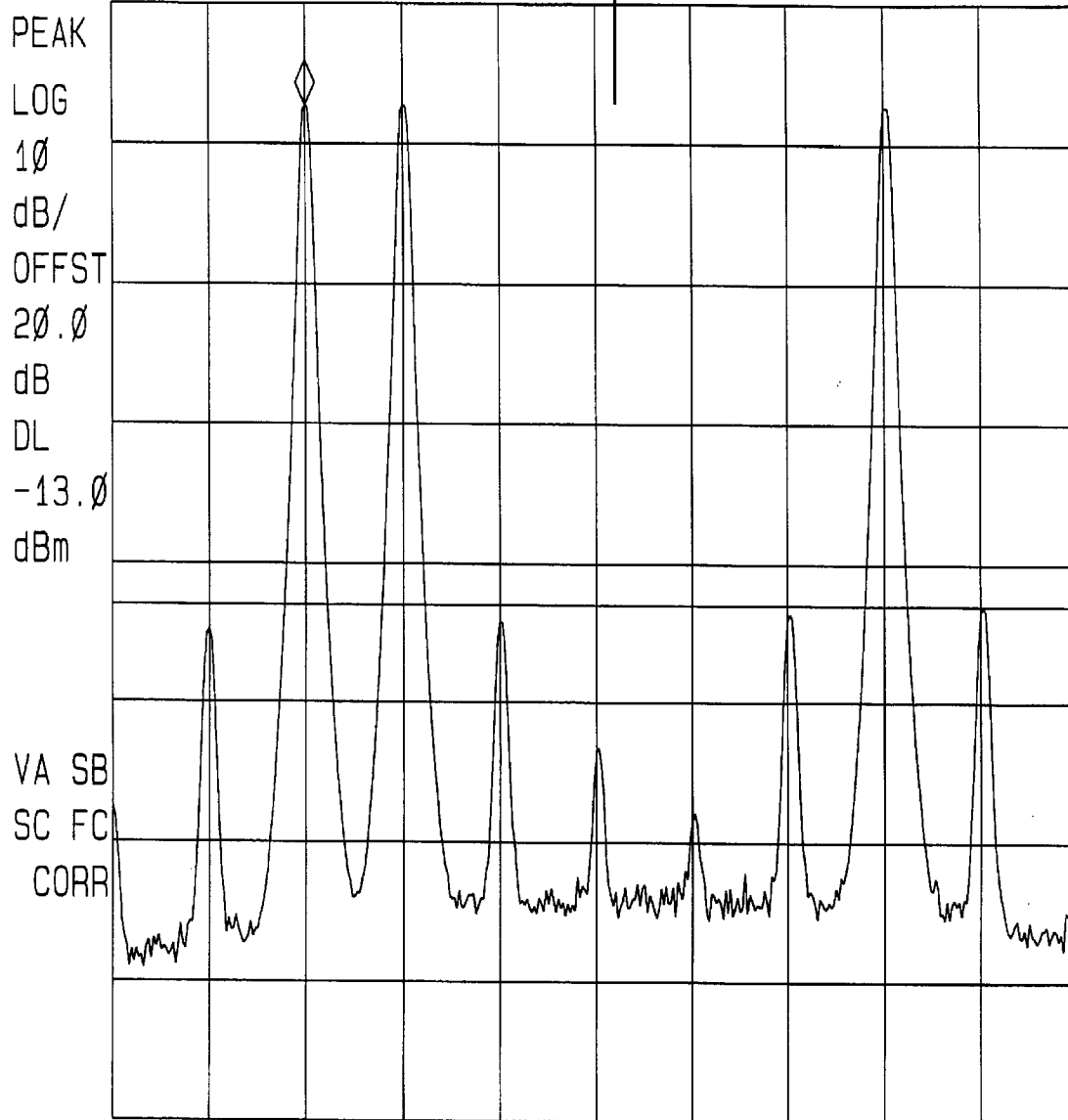
12: 19: 48 DEC 06, 2002

REF 30.0 dBm

AT 20 dB

MKR 854.00 MHz

22.72 dBm



START 851.00 MHz

STOP 866.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Intermodulation Characteristics, FCC Part 2, para 2.1047
Notes: Downlink Frequency Range: 851 - 866 MHz

Date: 12/6/02

Tech: T. Firkowski

Sheet 4 of 6



Retlif Testing Laboratories

Report No R-4067N

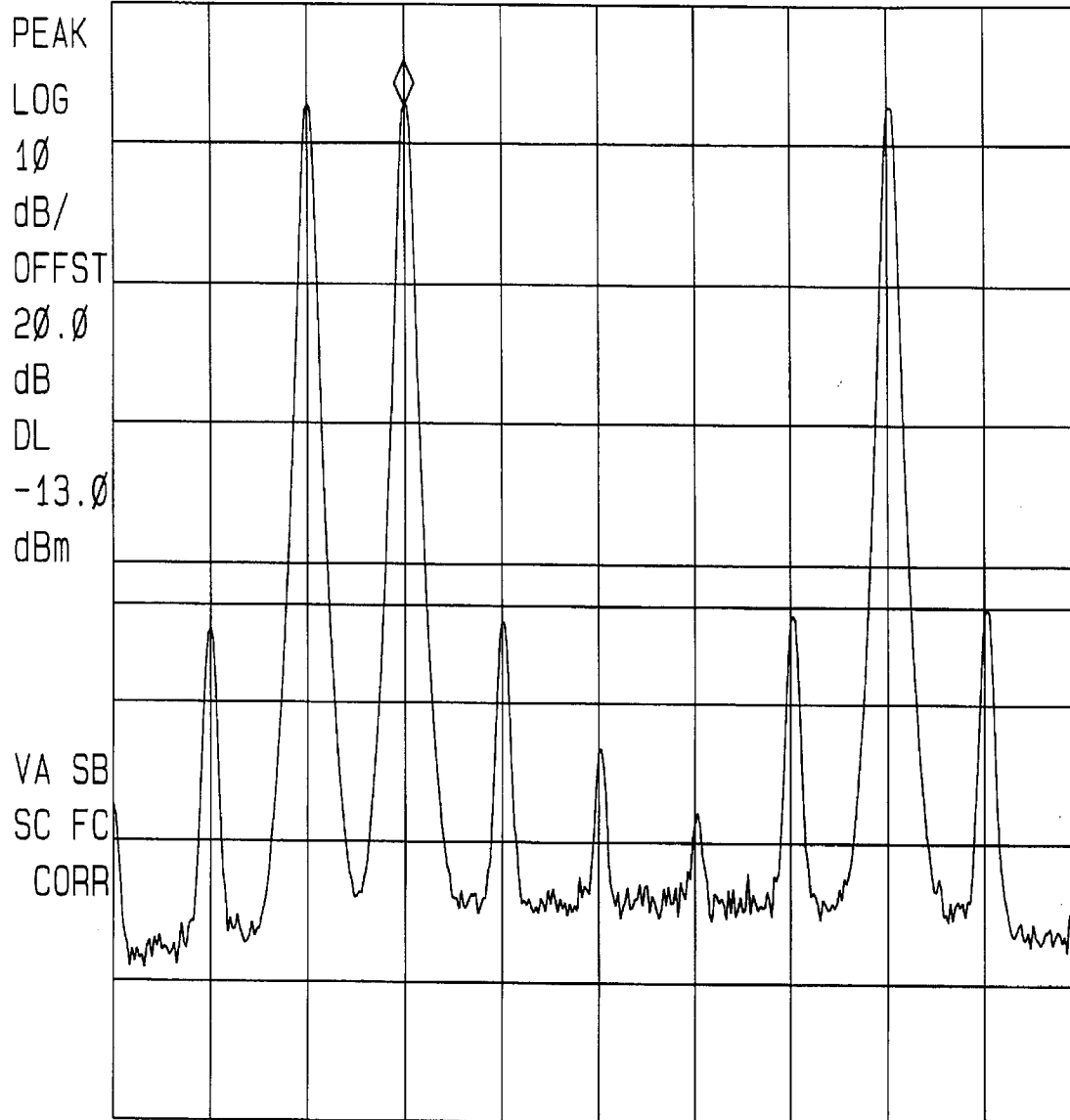
12: 19: 48 DEC 06, 2002

MKR 855.50 MHz

REF 30.0 dBm

AT 20 dB

22.70 dBm



START 851.00 MHz

STOP 866.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Intermodulation Characteristics, FCC Part 2, para 2.1047
Notes: Downlink Frequency Range: 851 - 866 MHz

Date: 12/6/02

Tech: T. Firkowski

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Retlif Testing Laboratories

Report No R-4067N

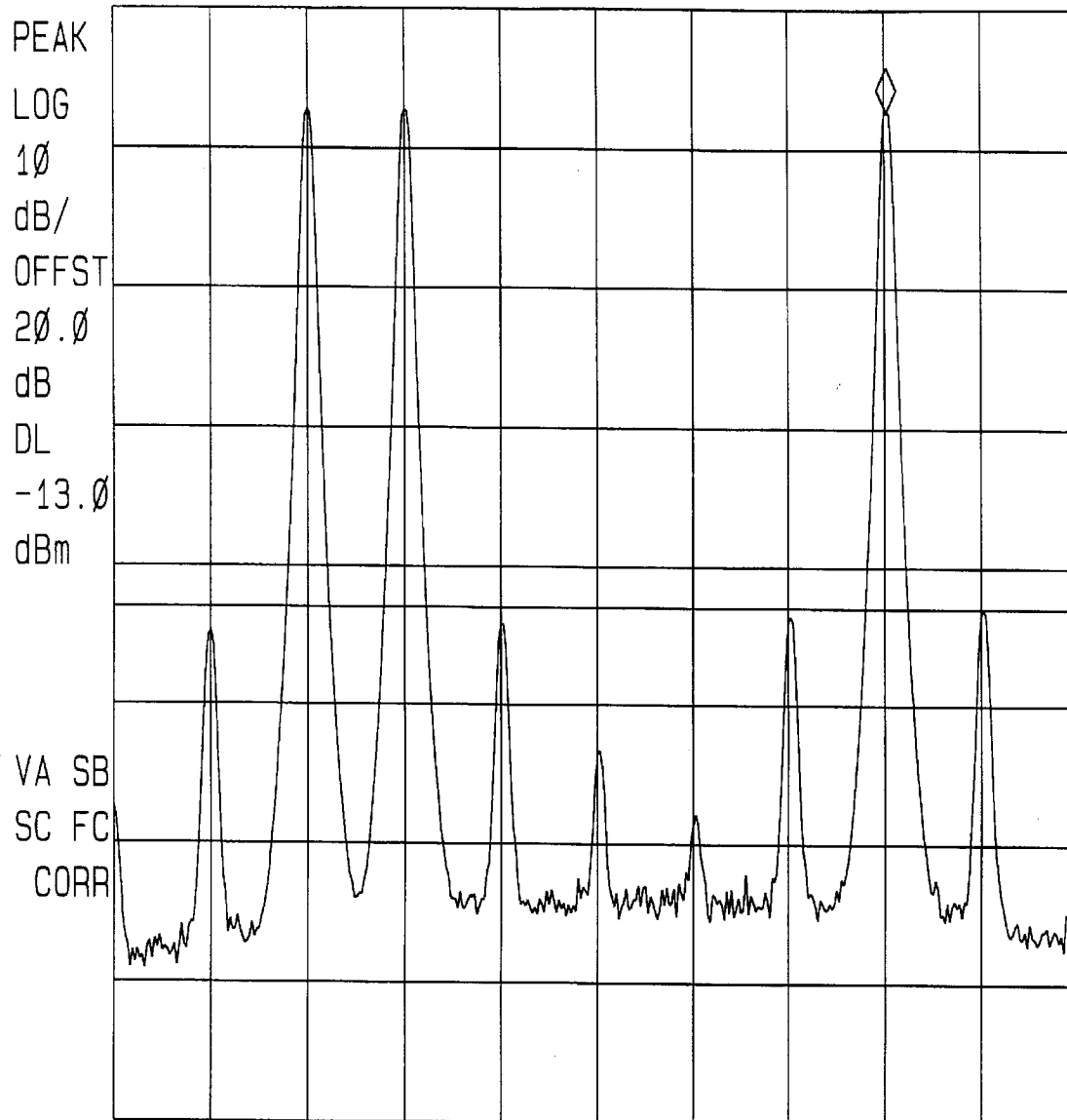
12:20:44 DEC 06, 2002

MKR 863.04 MHz

REF 30.0 dBm

AT 20 dB

22.70 dBm



START 851.00 MHz

STOP 866.00 MHz

#RES BW 100 kHz

VBW 300 kHz

SWP 20.0 msec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Intermodulation Characteristics, FCC Part 2, para 2.1047
Notes: Downlink Frequency Range: 851 - 866 MHz

Date: 12/6/02

Tech: T. Firkowski

Sheet 6 of 6



Retlif Testing Laboratories

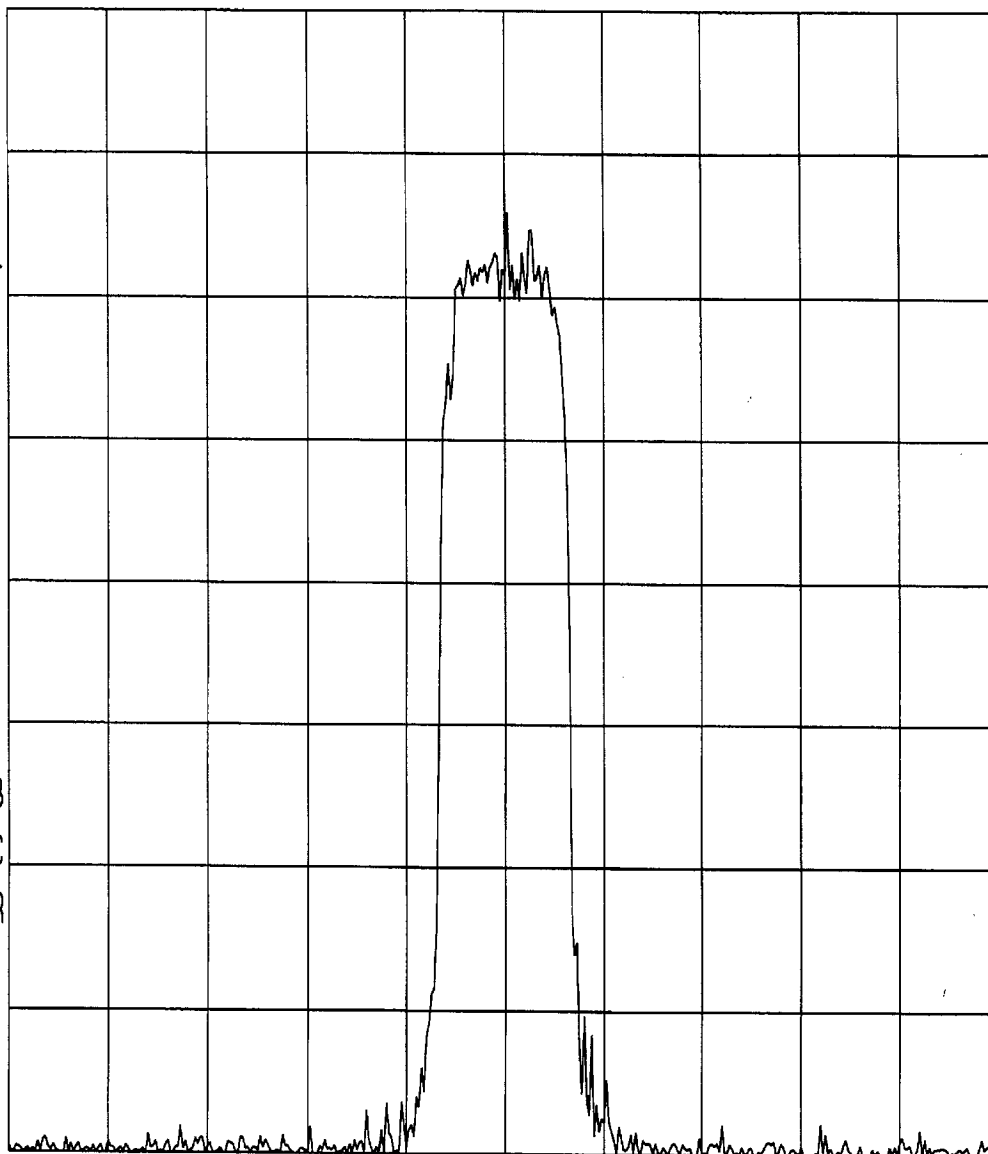
Report No R-4067N

12:14:46 DEC 19, 2002
/77

REF -9.0 dBm #AT 0 dB

PEAK
LOG
10
dB/
OFFST
26.0
dB

WA SB
SC FC
CORR



CENTER 813.5000 MHz

SPAN 250.0 kHz

#RES BW 300 Hz

VBW 1 kHz

SWP 8.33 sec

Customer:
Test Sample:
Model No:
Test Method:
Notes:

Cellular Specialties, Inc.
Bidirectional Amplifier
565SMR
Occupied Bandwidth, FCC Part 2, para 2.1049
Uplink Frequency 813.5 MHz
Modulation: TDMA input

Date: 12/19/02

Tech: T. Firkowski

Sheet 1 of 4



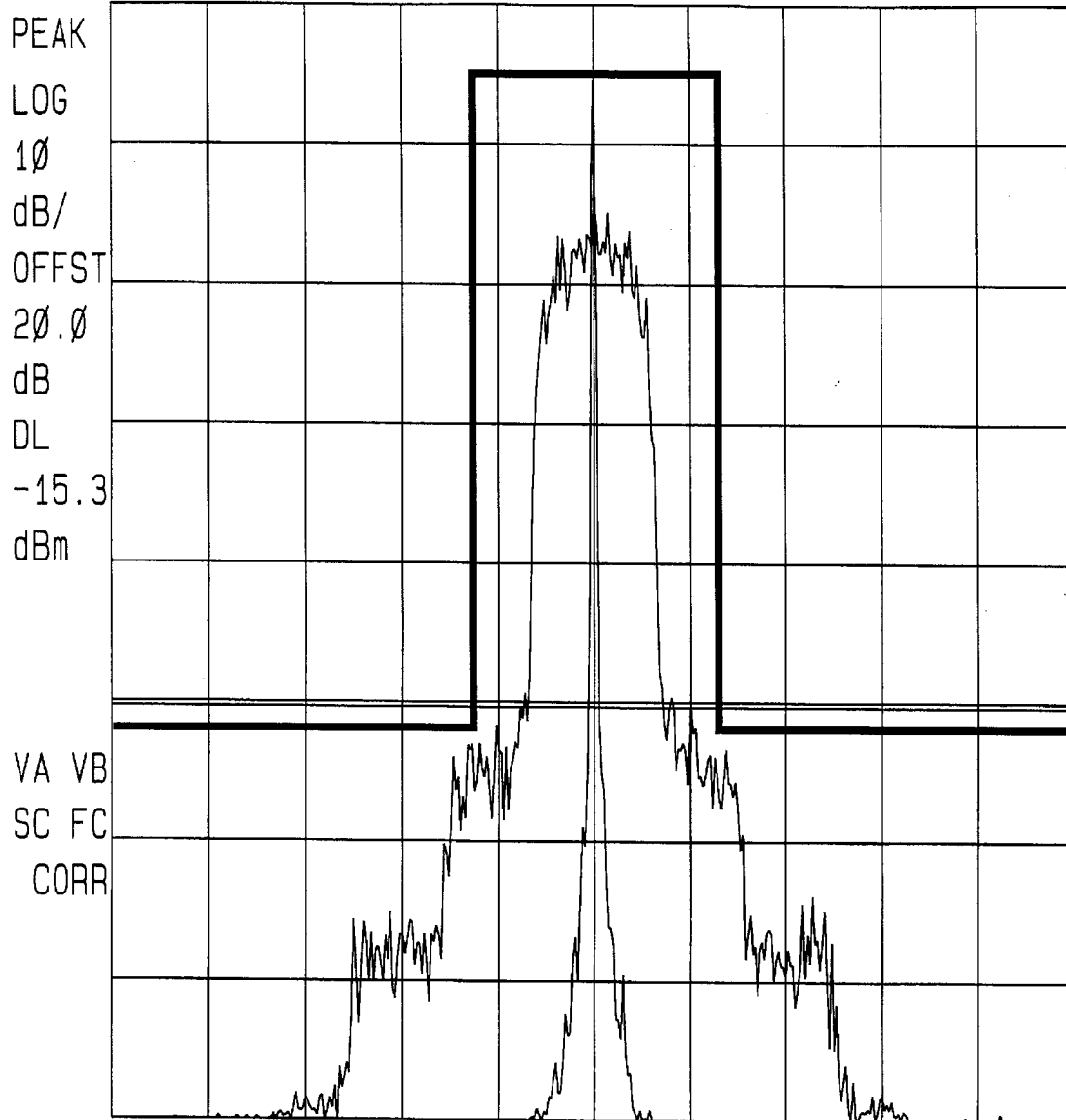
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Report No R-4067N

12: 12: 51 DEC 19, 2002

REF 35.0 dBm

AT 30 dB



Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Occupied Bandwidth, FCC Part 2, para 2.1049
Notes: Uplink Frequency: 813.5 MHz
Modulation: TDMA Output

Date: 12/19/02

Tech: T. Firkowski

Sheet 2 of 4



Retlif Testing Laboratories

Report No R-4067N

12: 25: 19 DEC 19, 2002

REF -9.0 dBm #AT 0 dB

PEAK

LOG

10

dB/

OFFST

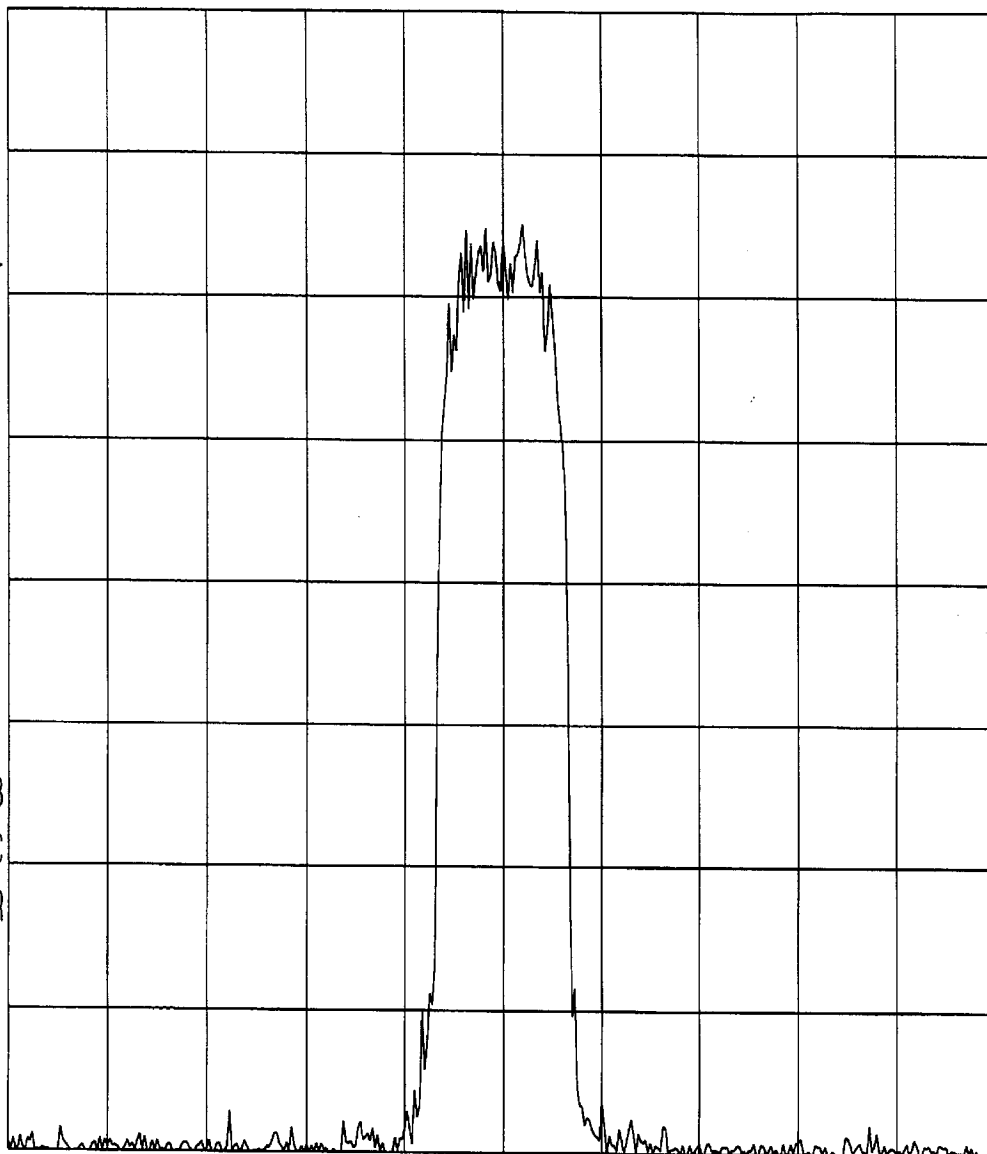
26.0

dB

WA SB

SC FC

CORR



CENTER 858.5000 MHz

#RES BW 300 Hz

VBW 1 kHz

SPAN 250.0 kHz

SWP 8.33 sec

Customer:
Test Sample:
Model No:
Test Method:
Notes:

Cellular Specialties, Inc.
Bidirectional Amplifier
565SMR
Occupied Bandwidth, FCC Part 2, para 2.1049
Downlink Frequency 858.5 MHz
Modulation: TDMA Input

Date: 12/19/02

Tech: T. Firkowski

Sheet 3 of 4

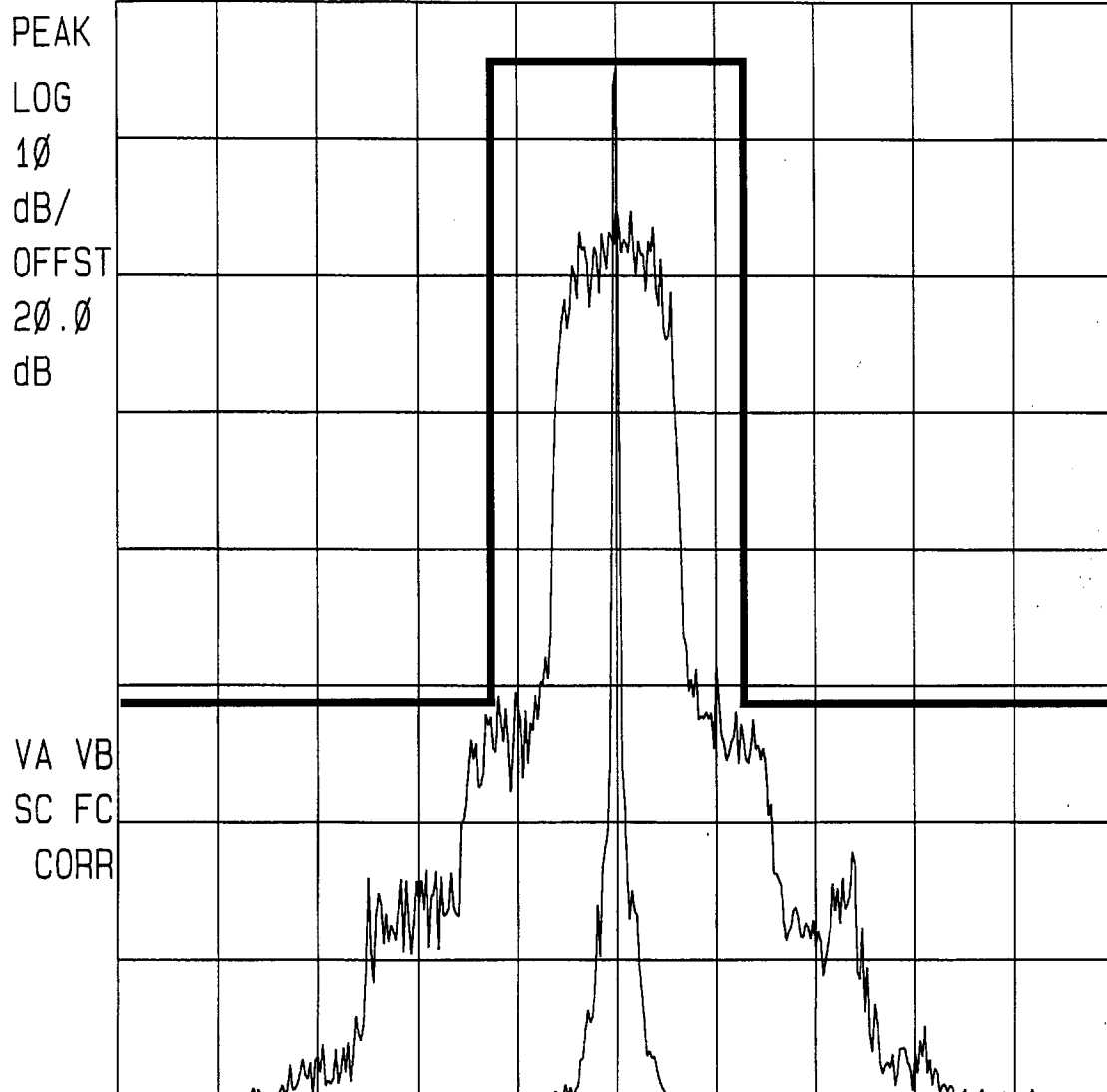


Retlif Testing Laboratories

Report No R-4067N

12: 23: 25 DEC 19, 2002
hp

REF 35.0 dBm AT 30 dB



CENTER 858.5000 MHz

SPAN 250.0 kHz

#RES BW 300 Hz

VBW 1 kHz

SWP 8.33 sec

Customer: Cellular Specialties, Inc.
Test Sample: Bidirectional Amplifier
Model No: 565SMR
Test Method: Occupied Bandwidth, FCC Part 2, para 2.1049
Notes: Downlink Frequency 858.5 MHz
Modulation: TDMA Output

Date: 12/19/02

Tech: T. Firkowski

Sheet 4 of 4



Retlif Testing Laboratories

Report No. R-4067N

EMISSIONS DATA SHEET

Spurious Emissions at the Antenna Terminals 30 MHz to 8.66 GHz

Cellular Specialties, Inc.

R-4067N

Bidirectional Amplifier

565SMR

SMR2

FCC Part 2

Paragraph: 2.1051

Amplifying input signal

T. Firkowski

Date:

12/6/02

Uplink Frequency: 813.5 MHz

Downlink Frequency: 858.5 MHz

[illegible]

EQUIPMENT LIST

Antenna Conducted Spurious Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
4895	Spectrum Analyzer	Hewlett Packard	9kHz - 22GHz	8593EM	2/13/02	2/13/03
4935	6.0 dB Attenuator	JFW Inc.	DC - 2 GHz	50FH-006-50N	1/25/02	1/25/03
4962	Attenuator	Narda	DC - 18 GHz	757C-20dB	11/6/02	11/6/03
530A	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	7/10/02	7/10/03

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:

Spurious Radiated Emissions (ERP) 30 MHz to 8.66 GHz

Customer:

Cellular Specialties, Inc.

Job No:

R-4067N

Test Sample:

Bidirectional Amplifier

Model No:

565SMR

Serial No:

SMR2

Test Specification:

FCC Part 2.1053\Part 90

Paragraph: n/a

Operating Mode:

Amplifying input signal

Technician:

T. Firkowski

Date:

12/12/02

Notes:

Uplink Frequency Range:806-821 MHz

Tested at 813.5 MHz

Peak Detector

[illegible]

No emissions observed within 20 dB of the limit.

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:

Spurious Radiated Emissions (ERP) 30 MHz to 8.66 GHz

Customer:

Cellular Specialties, Inc.

Job No:

R-4067N

Test Sample:

Bidirectional Amplifier

Model No:

565SMR

Serial No:

SMR2

Test Specification:

FCC Part 2.1053\Part 90

Paragraph: n/a

Operating Mode:

Amplifying input signal

Technician:

T. Firkowski

Date:

12/12/02

Notes:

Uplink Frequency Range:851-866 MHz

Tested at 858.5 MHz

Peak Detector

[illegible]

No emissions observed within 20 dB of the limit.

EMISSIONS DATA SHEET

Frequency Stability

Cellular Specialties, Inc.

Job No:

R-4067N

Bidirectional Amplifier

565SMR

Serial No:

SMR2

Fcc Part 2

Paragraph: 2.1055

Amplifying input signal

T. Firkowski

Date:

12/10/02

Uplink Frequency: 813.5 MHz

Nominal Input Voltage: 115 VAC

Downlink Frequency: 858.5 MHz

[illegible]