

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - uplink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

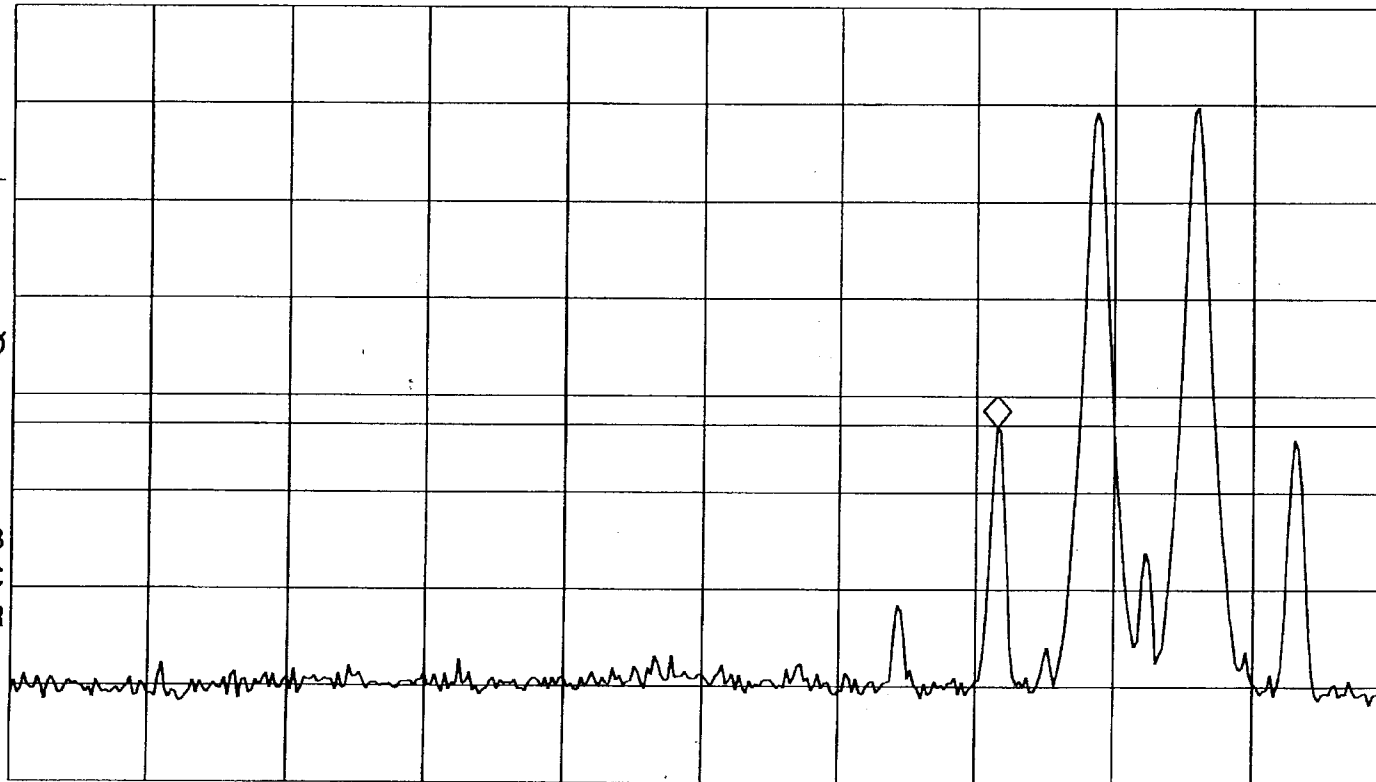
10: 11: 00 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.90005 GHz
-13.15 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Notes:	TDMA - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 11: 14 MAY 29, 2003

MKR 1.90513 GHZ

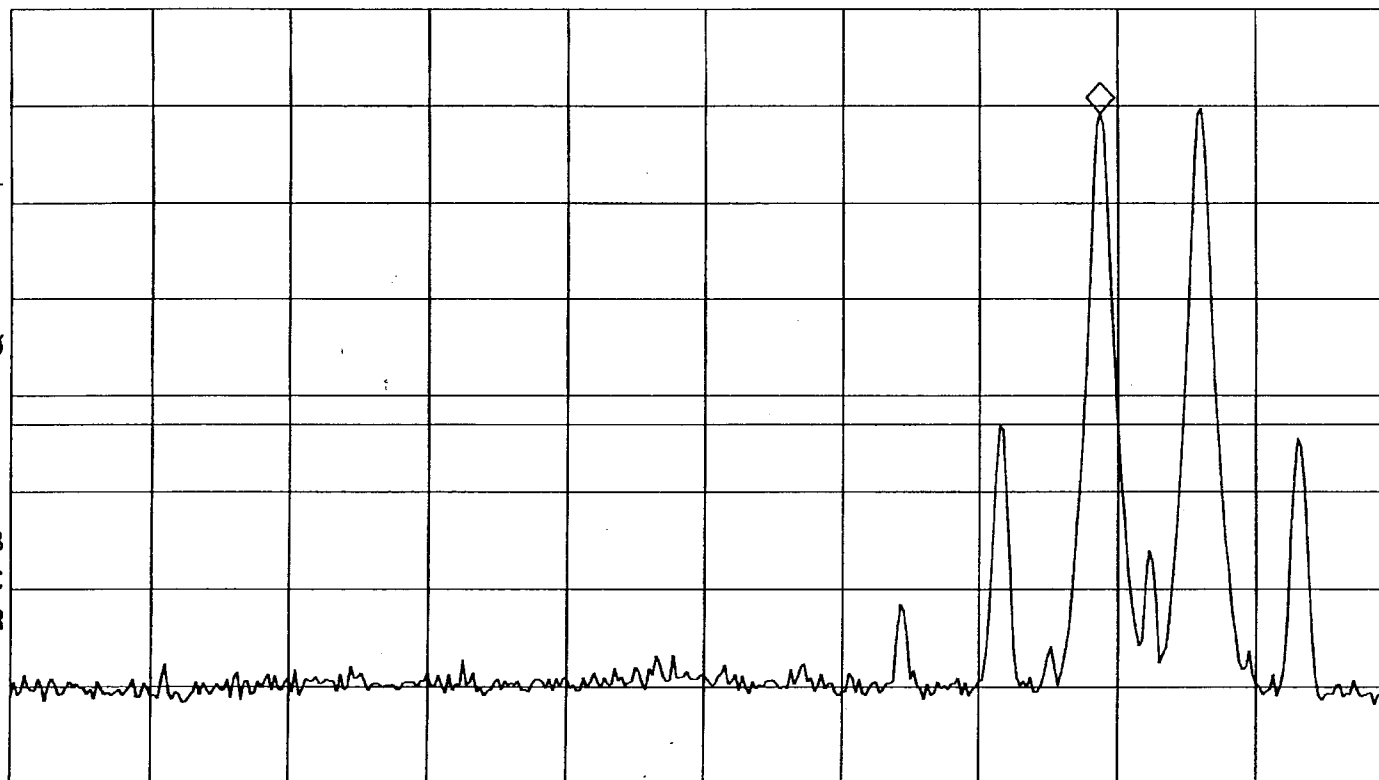
REF 30.0 dBm

AT 20 dB

19.24 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHZ

#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHZ

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 11: 23 MAY 29, 2003

REF 30.0 dBm

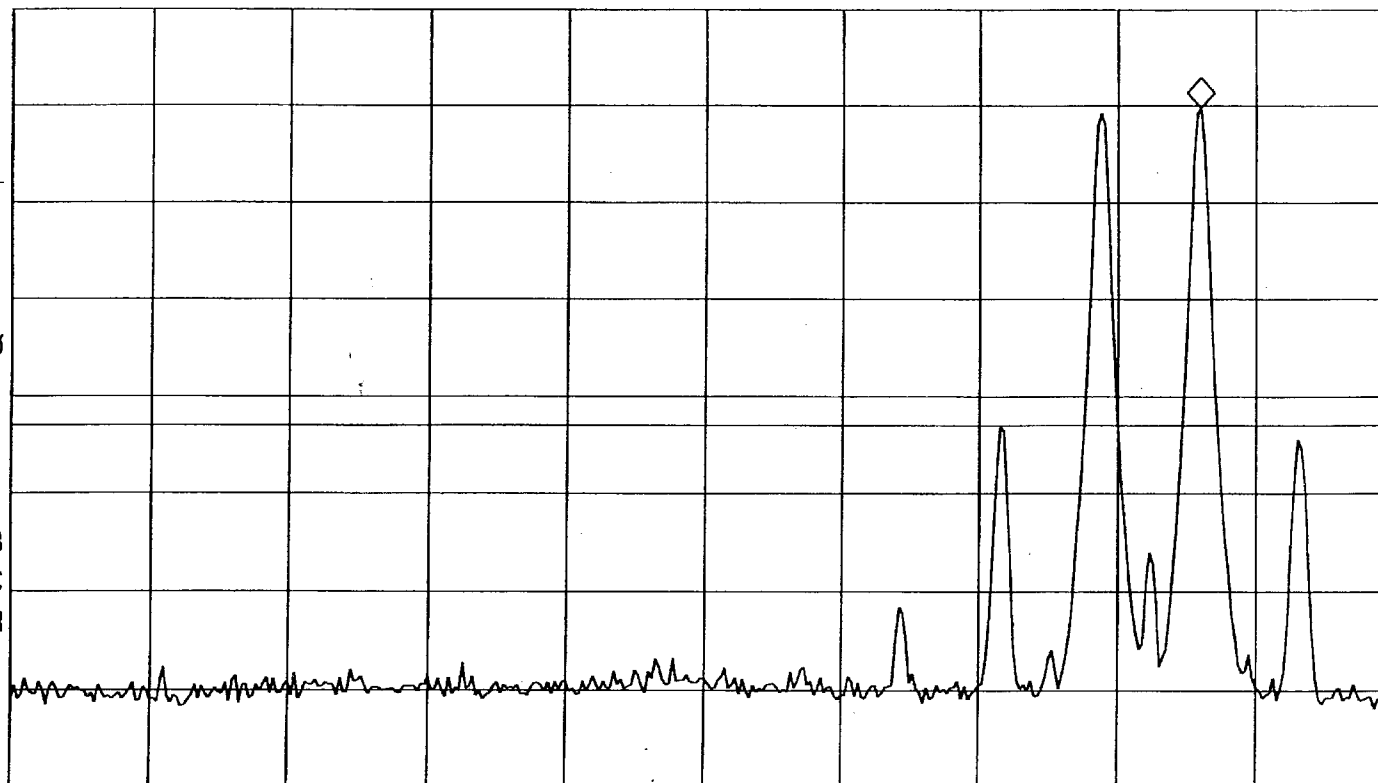
AT 20 dB

MKR 1.91020 GHz

19.80 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.92000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 11: 43 MAY 29, 2003

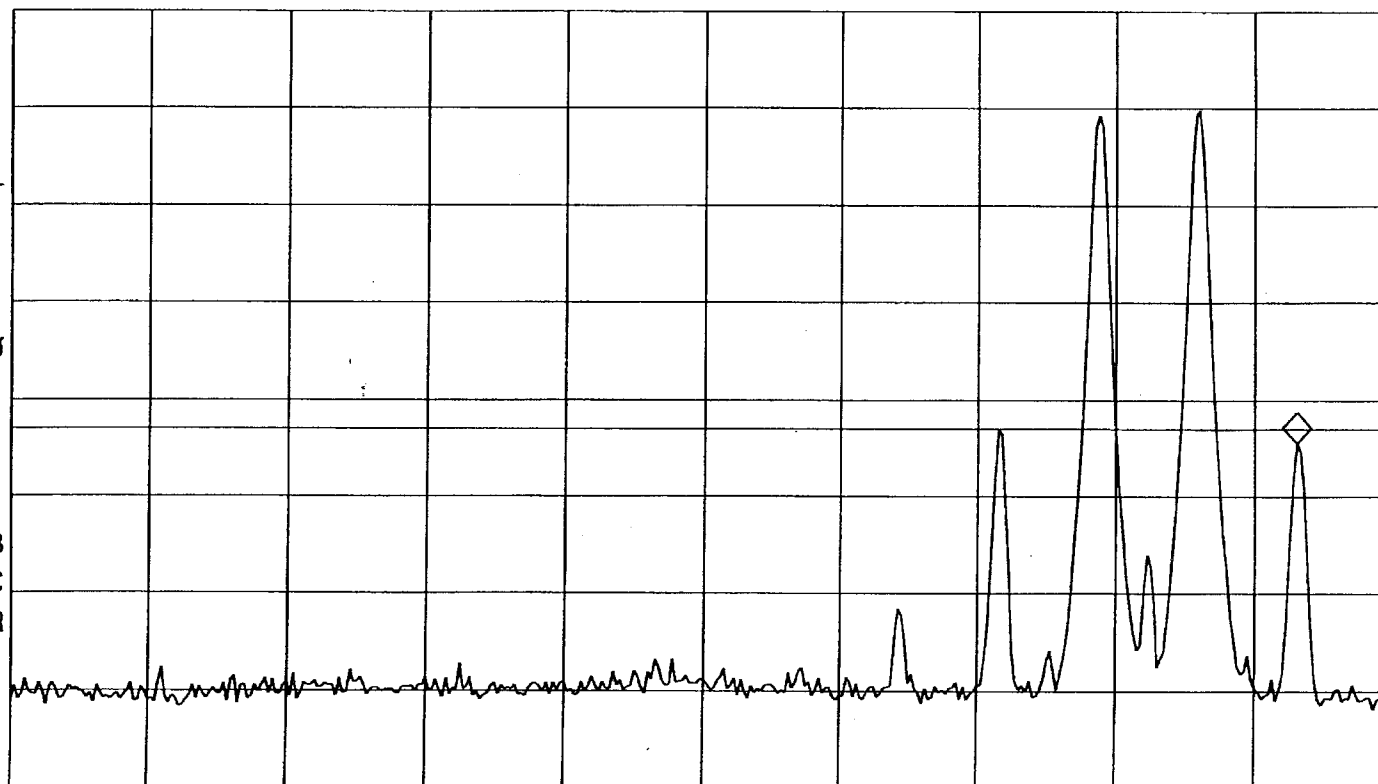
REF 30.0 dBm

AT 20 dB

MKR 1.91510 GHz
-14.46 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

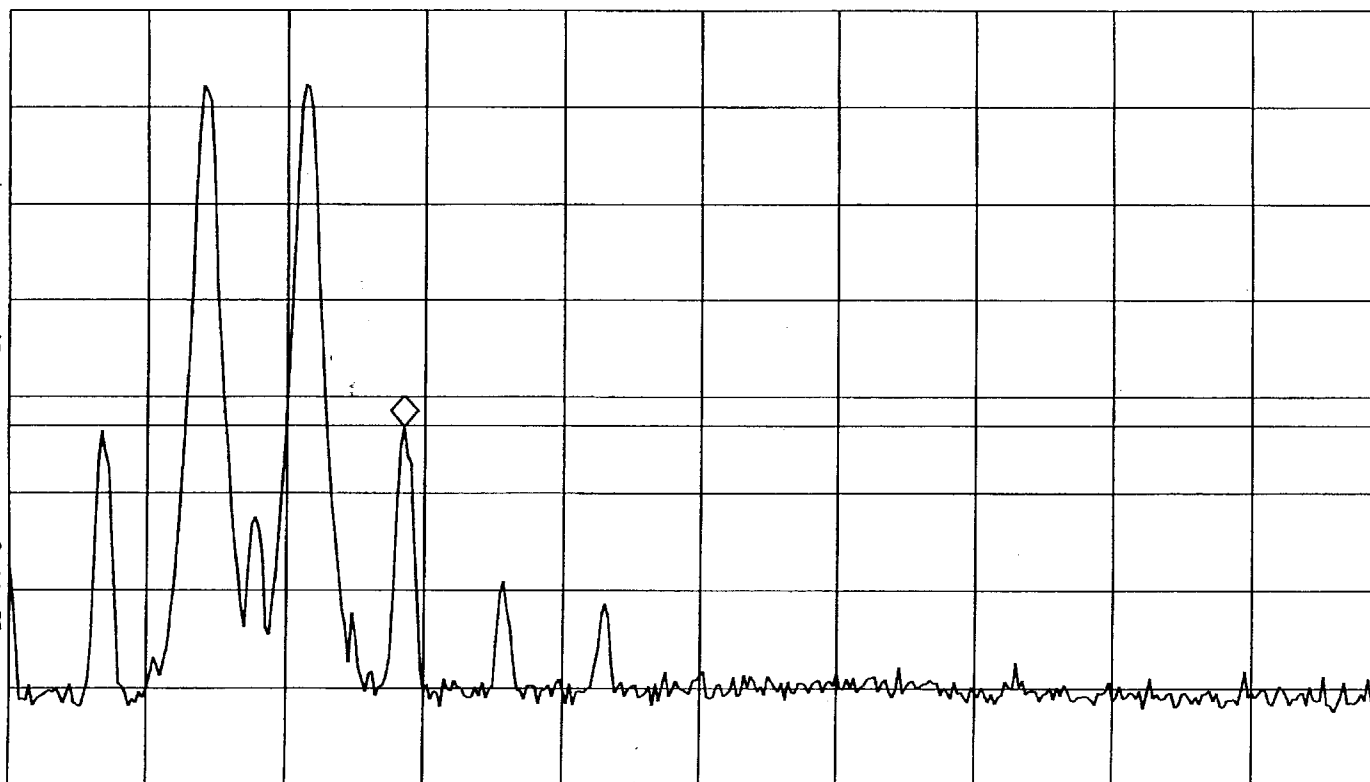
10: 15: 04 MAY 29, 2003

MKR 1.85995 GHz
-13.10 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
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Test Specification:	FCC Part 2	Paragraph:	2.1047
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Notes:	TDMA - uplink - low end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

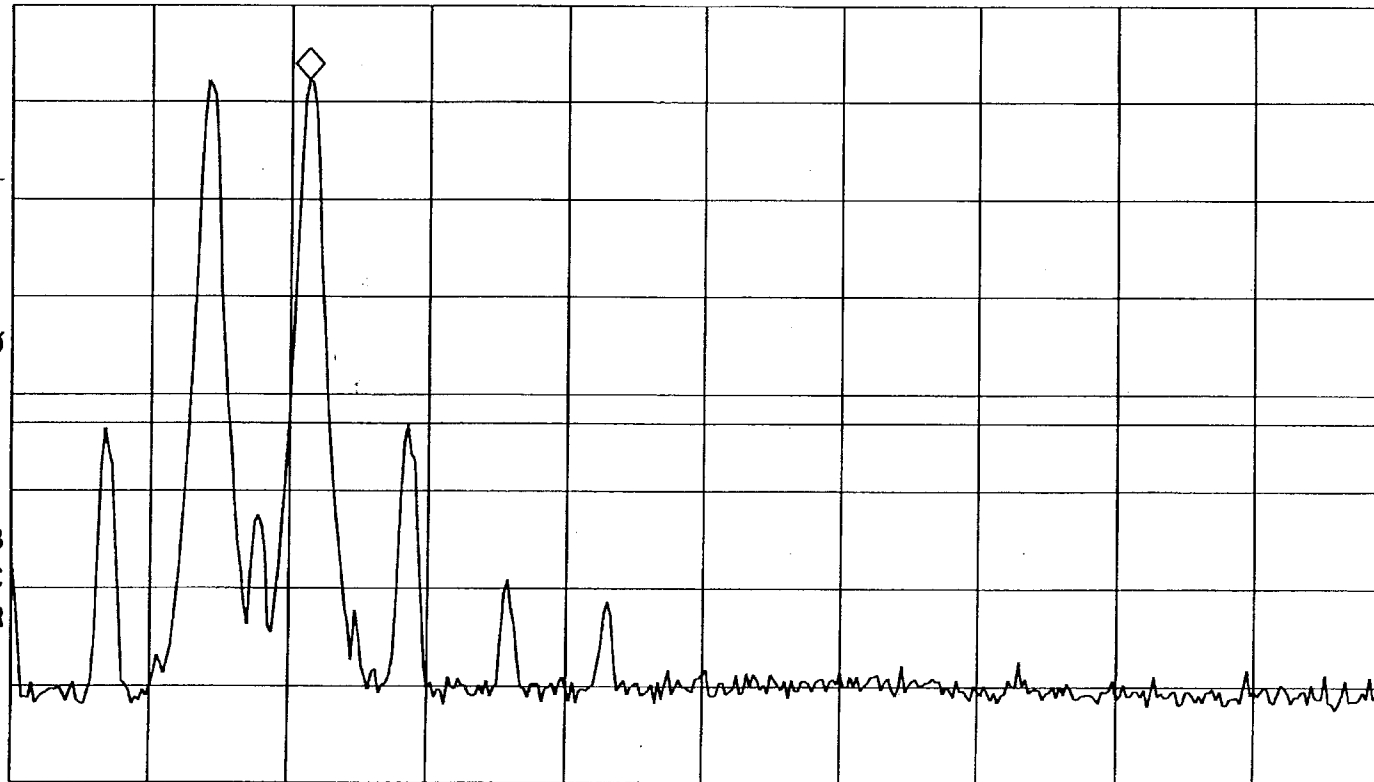
10: 15: 09 MAY 29, 2003

MKR 1.85488 GHz
22.36 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
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Technician:	T. Firkowski		
Date:	5/29/03		

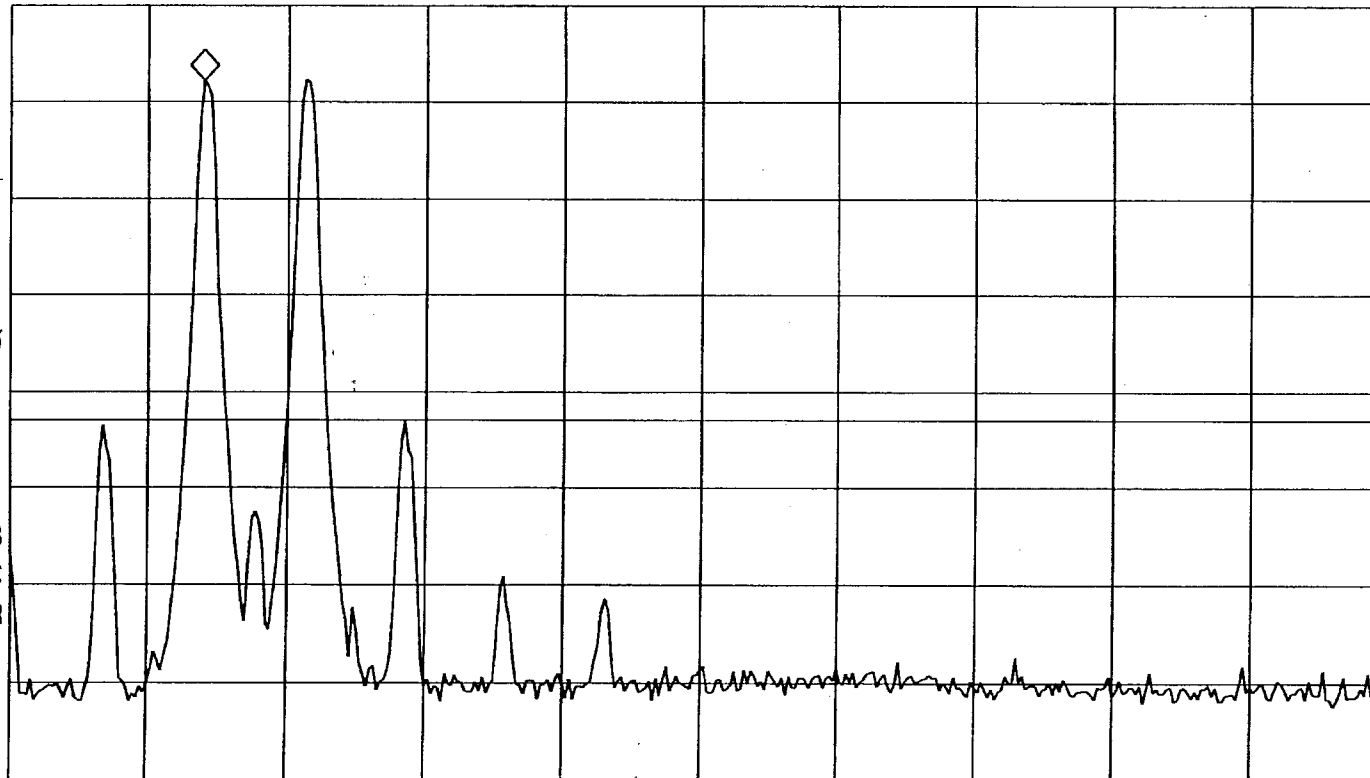
10: 15: 26 MAY 29, 2003

MKR 1.84980 GHz
22.24 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

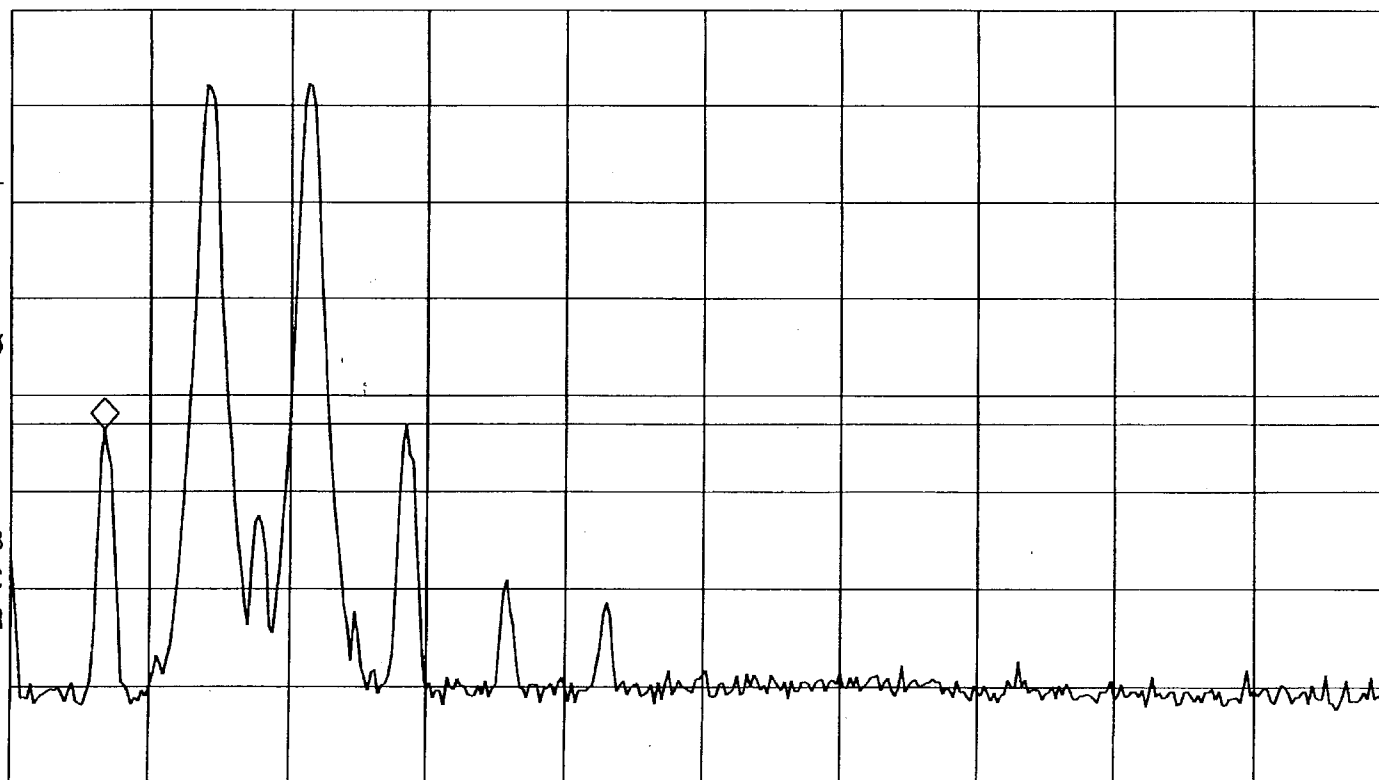
10: 15: 45 MAY 29, 2003

MKR 1.84473 GHz
-13.51 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 25: 07 MAY 29, 2003

REF 30.0 dBm

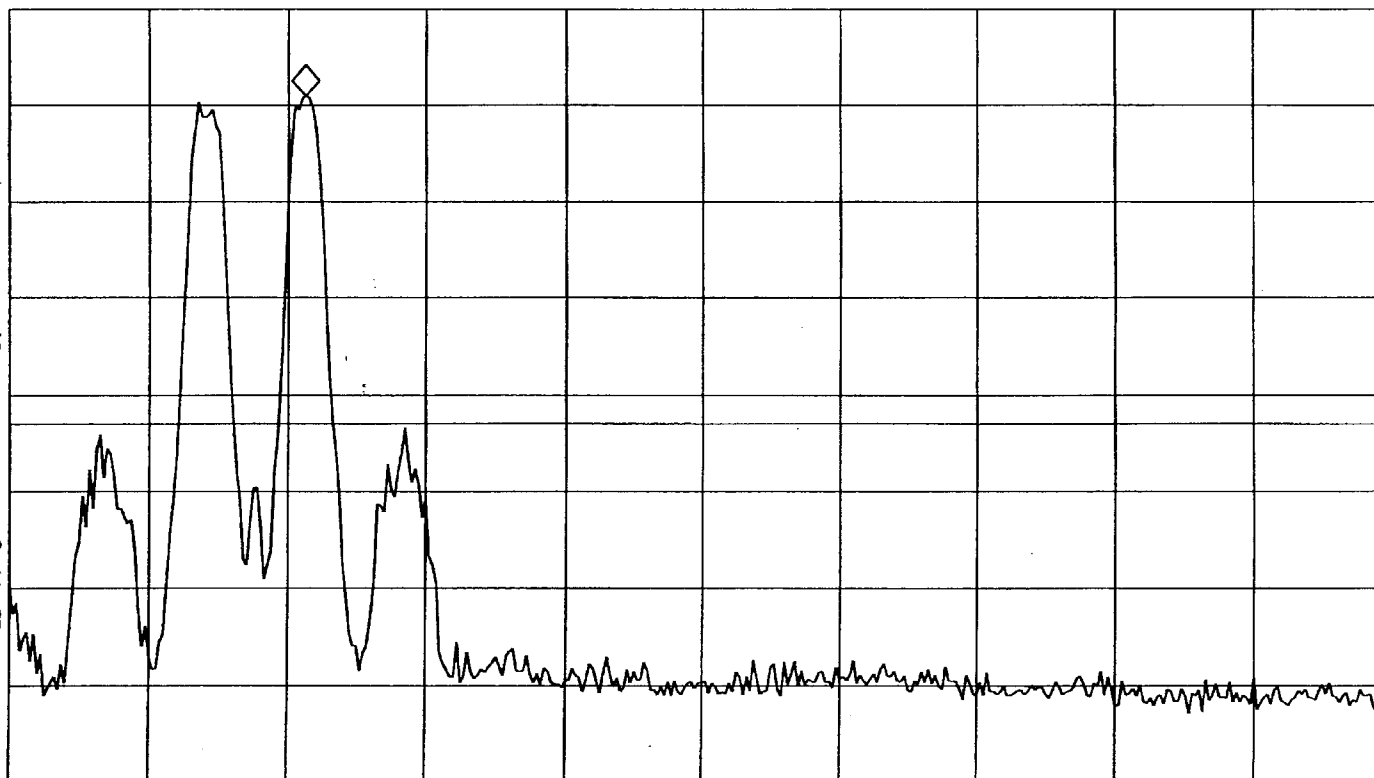
AT 20 dB

MKR 1.85488 GHz

21.00 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

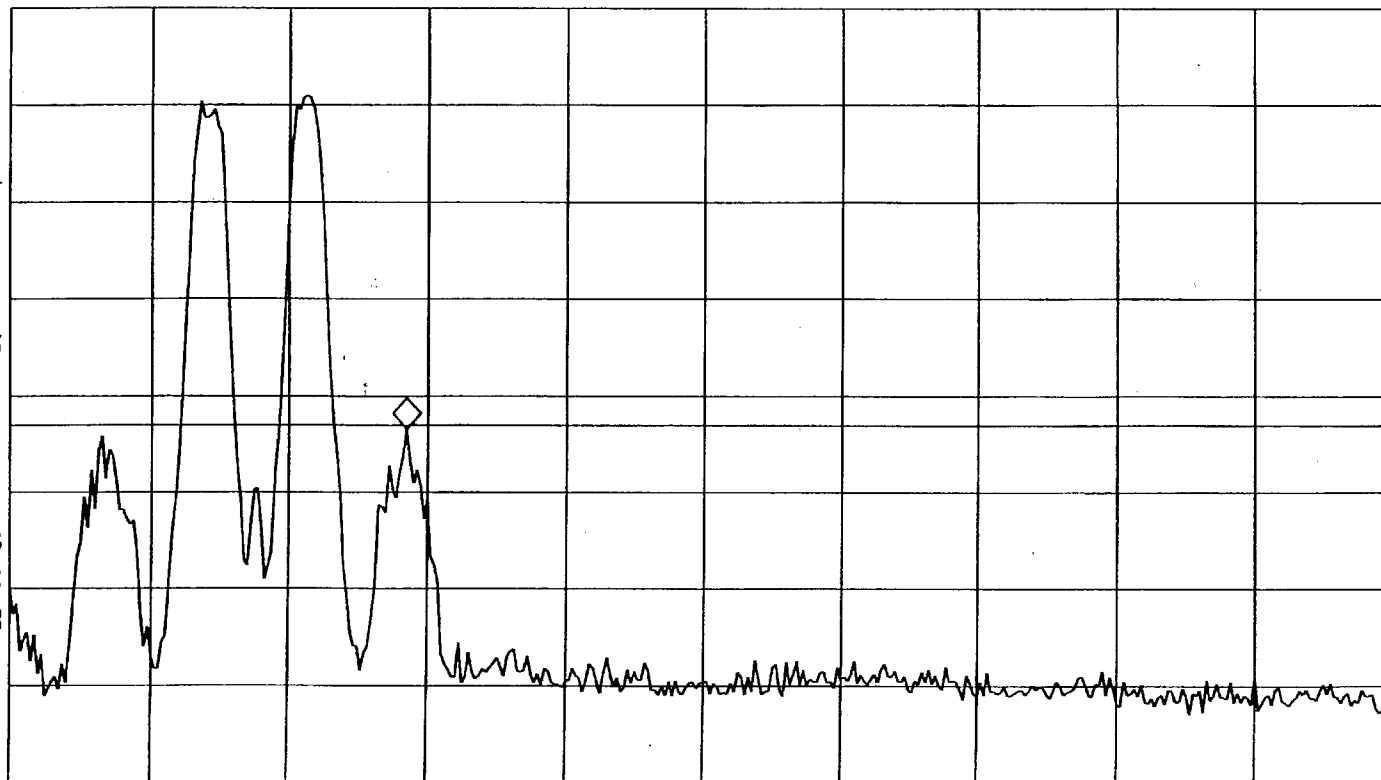
10: 24: 59 MAY 29, 2003

MKR 1.85995 GHz
-13.41 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

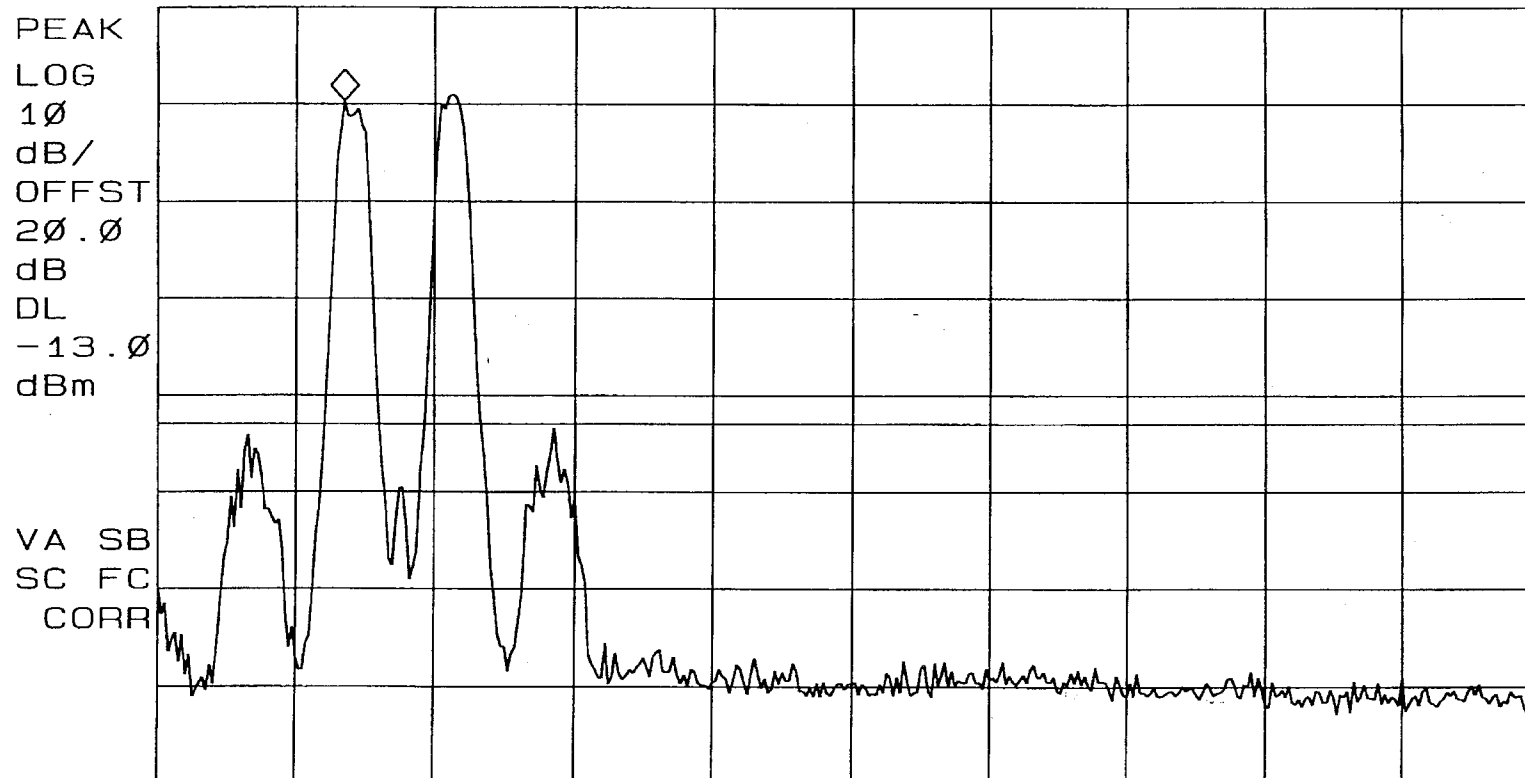
EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 25: 24 MAY 29, 2003

MKR 1.84945 GHz
20.35 dBm

REF 30.0 dBm AT 20 dB



START 1.84000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 25: 45 MAY 29, 2003

REF 30.0 dBm

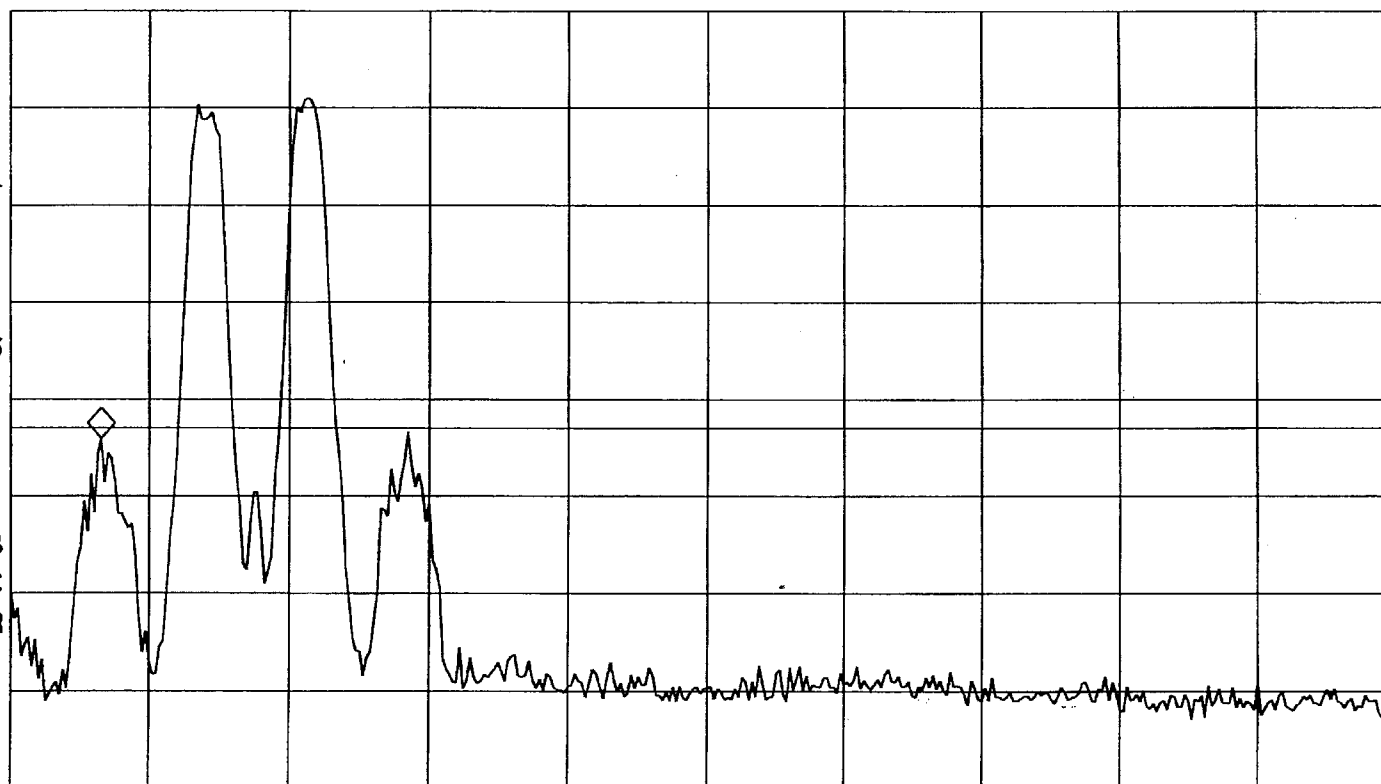
AT 20 dB

MKR 1.84455 GHz

-14.10 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
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Notes:	CDMA - uplink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

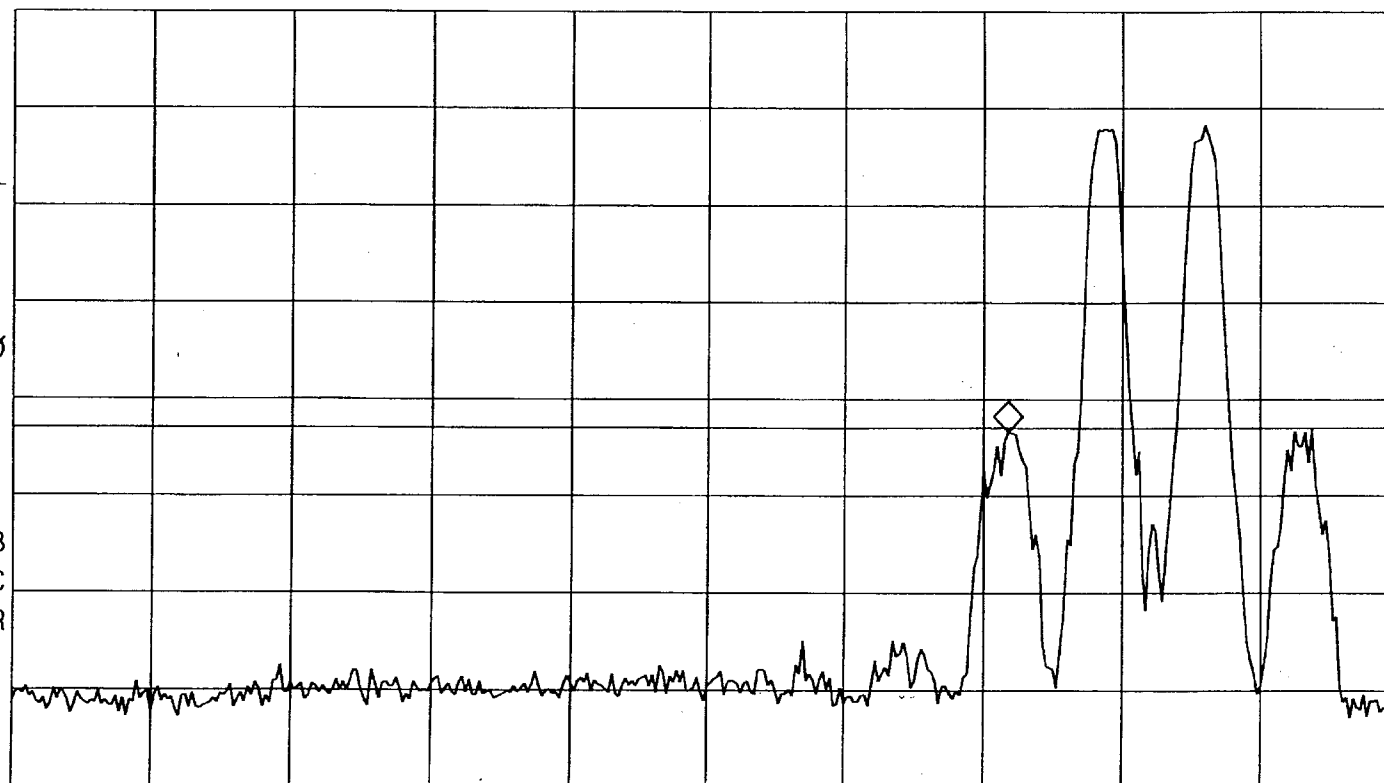
10: 28: 23 MAY 29, 2003

MKR 1.90023 GHz
-13.41 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

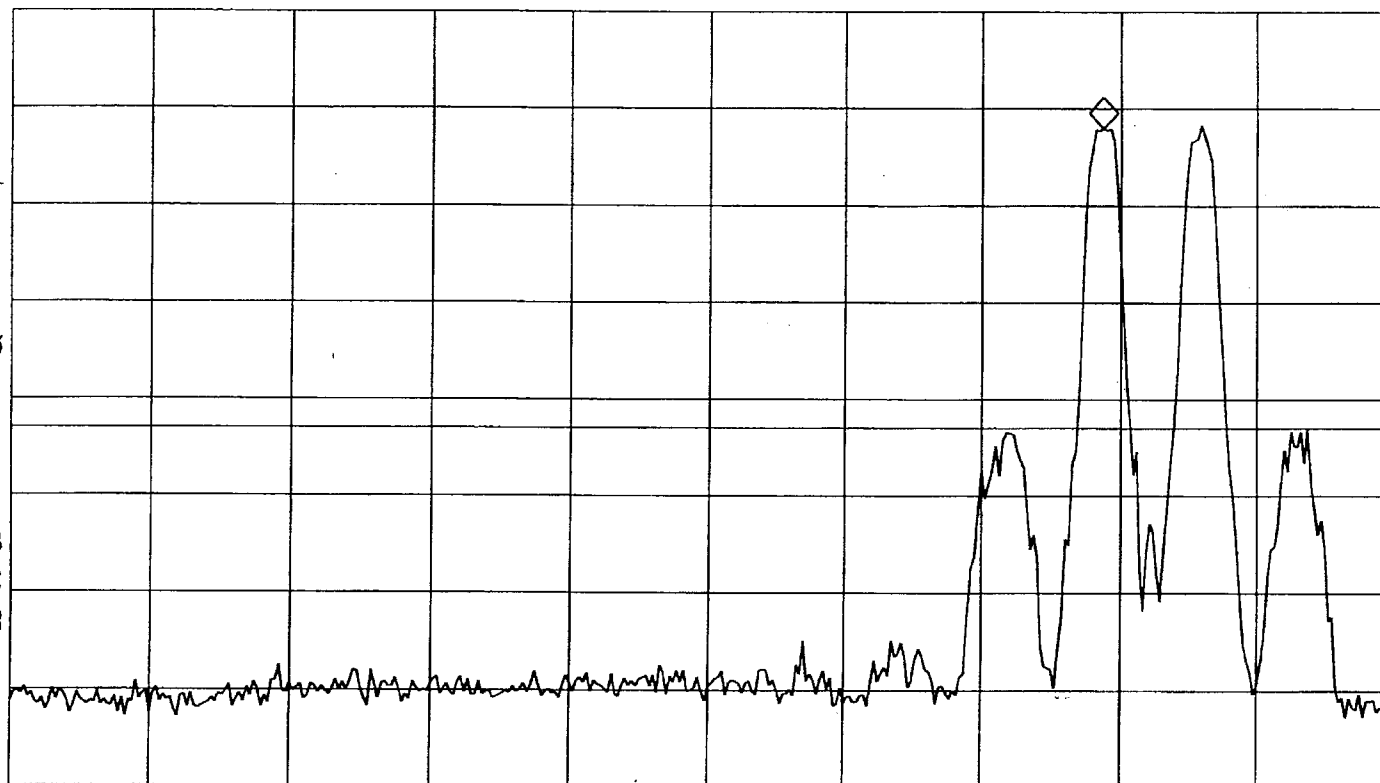
10: 28: 03 MAY 29, 2003

MKR 1.90513 GHz
17.95 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

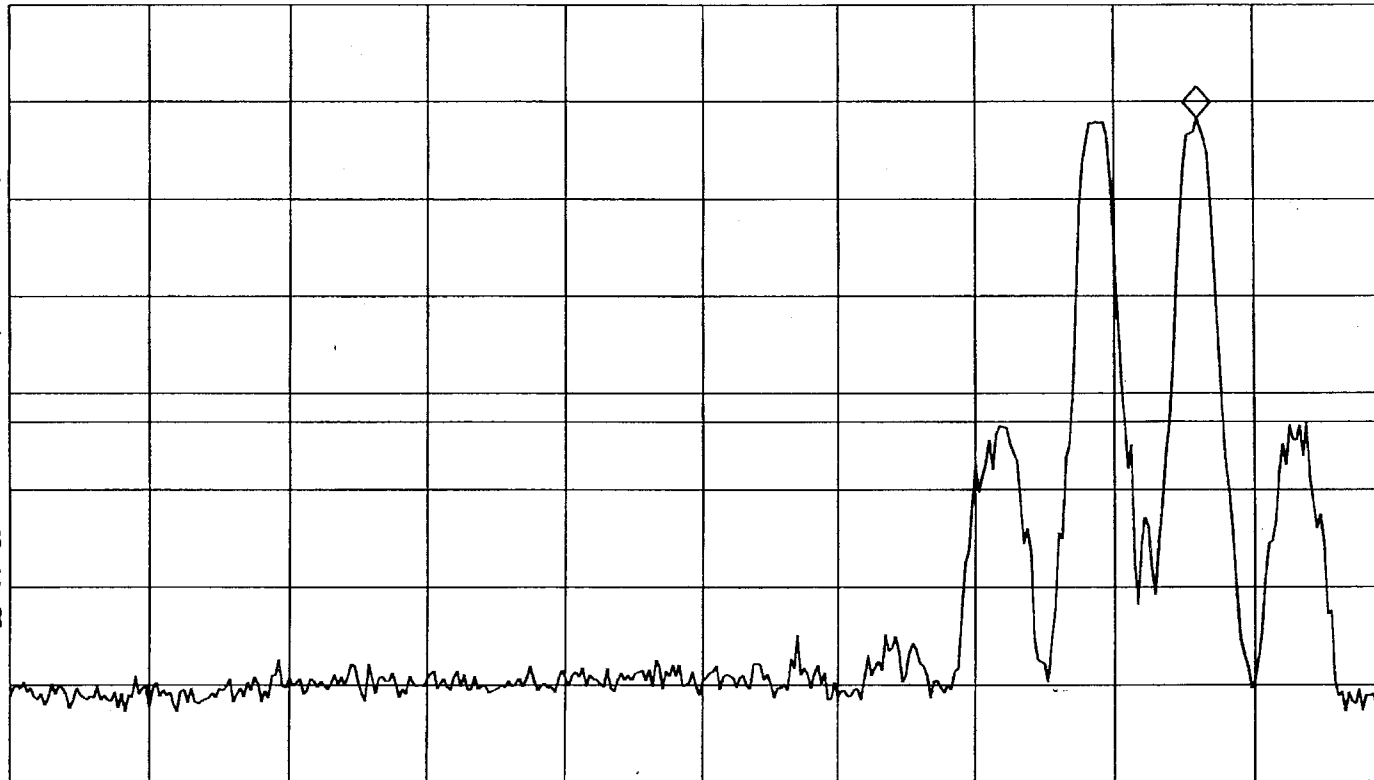
10:27:52 MAY 29, 2003

MKR 1.91020 GHz
18.33 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

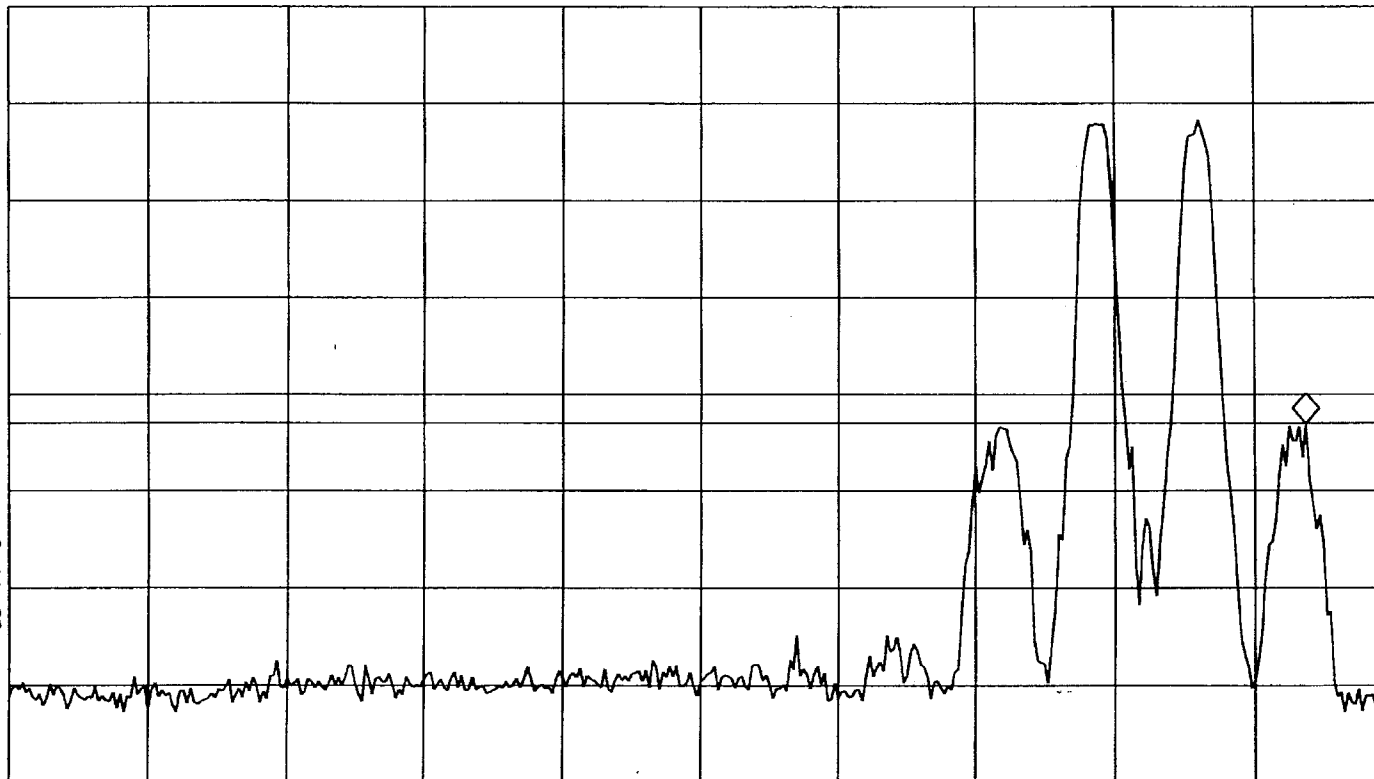
10: 27: 42 MAY 29, 2003

MKR 1.91563 GHz
-13.08 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - downlink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 34: 51 MAY 29, 2003

REF 30.0 dBm

AT 20 dB

MKR 1.93015 GHz

18.38 dBm

PEAK

LOG

10

dB/

OFFST

20.0

dB

DL

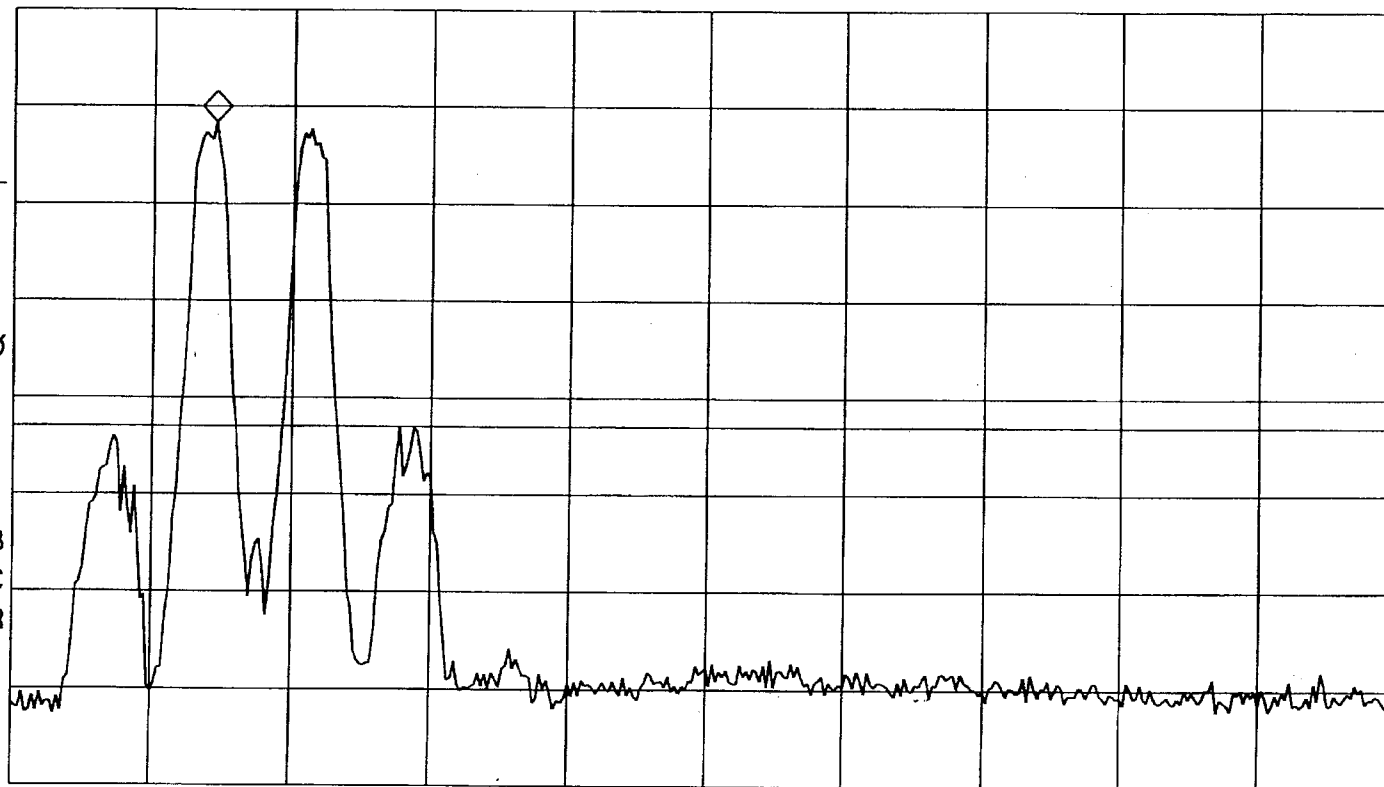
-13.0

dBm

VA SB

SC FC

CORR



START 1.92000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph: 2.1047	Date:
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Notes:	CDMA - downlink - low end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		

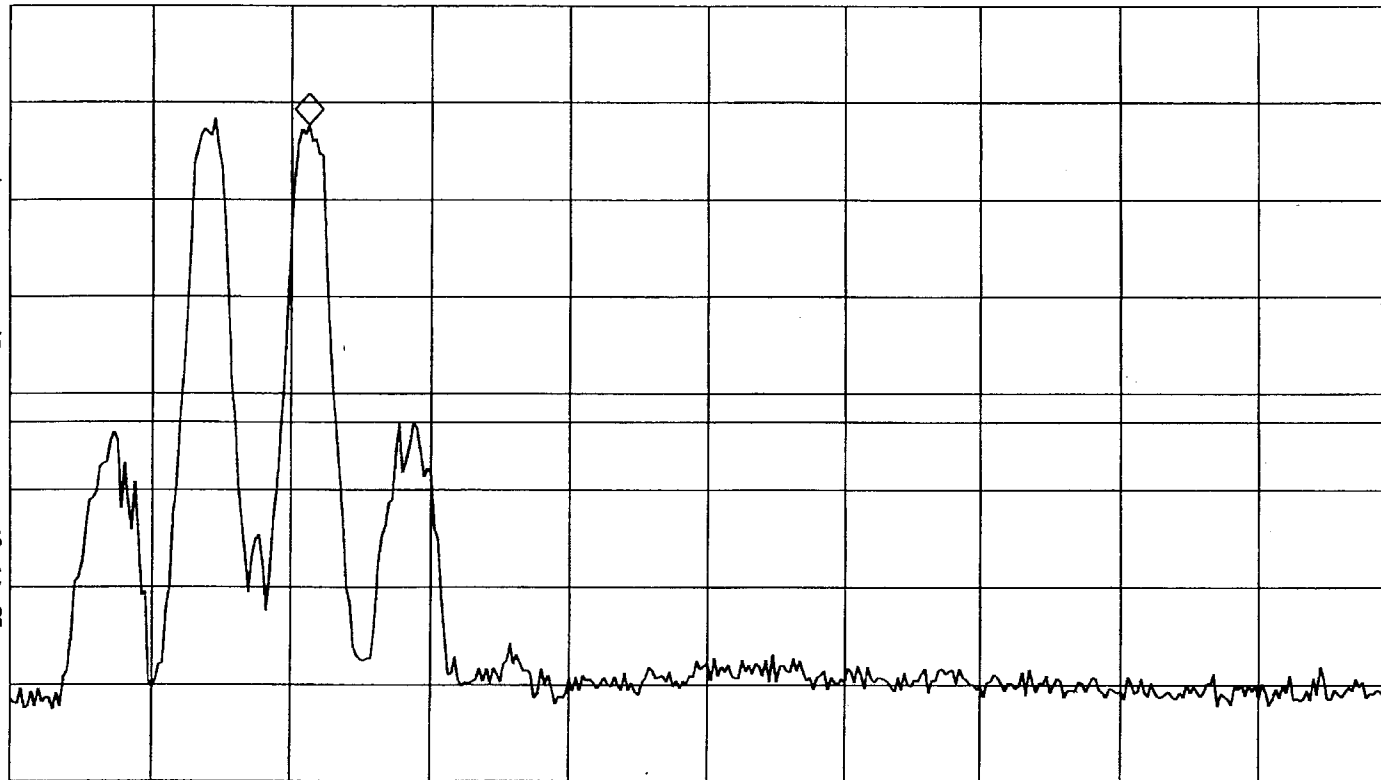
10: 34: 35 MAY 29, 2003

MKR 1.93488 GHz
17.71 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10: 34: 28 MAY 29, 2003

MKR 1.93943 GHz

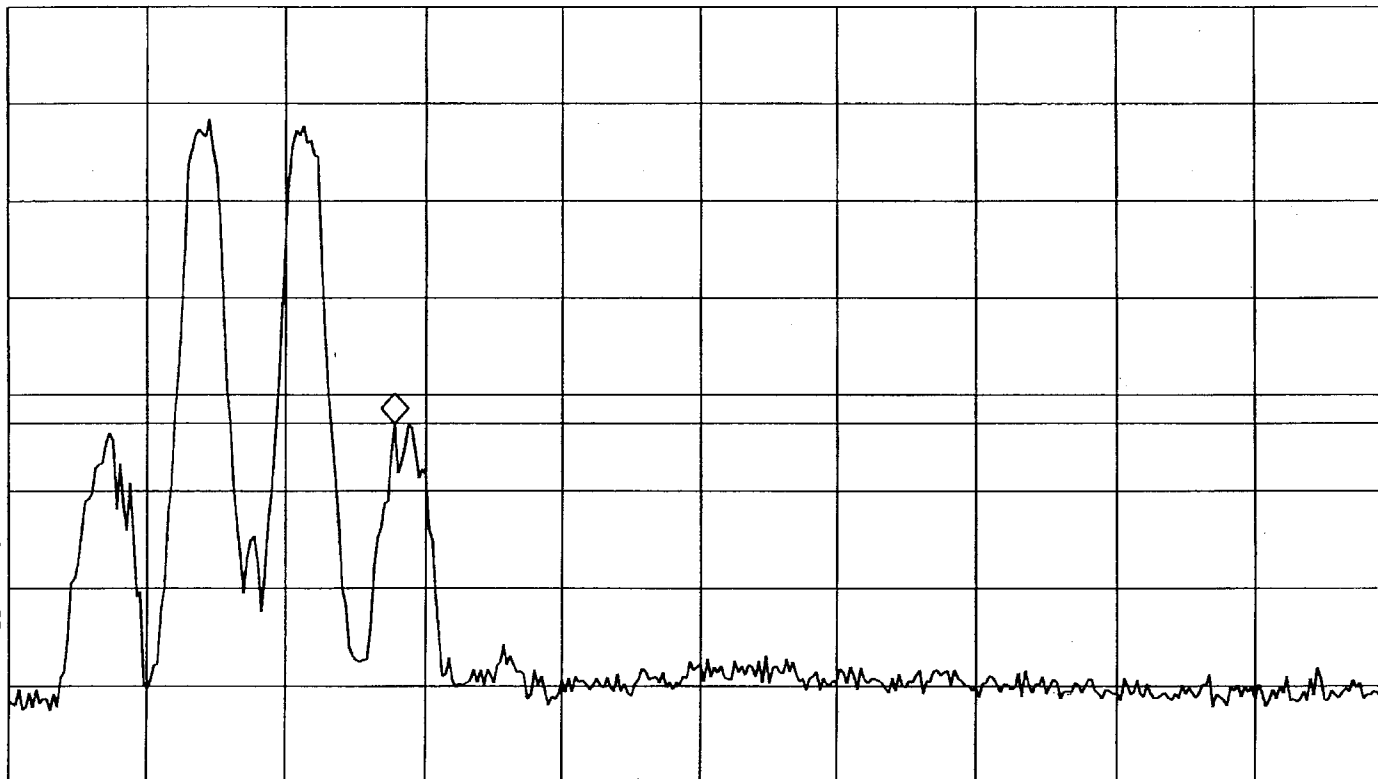
REF 30.0 dBm

AT 20 dB

-13.05 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

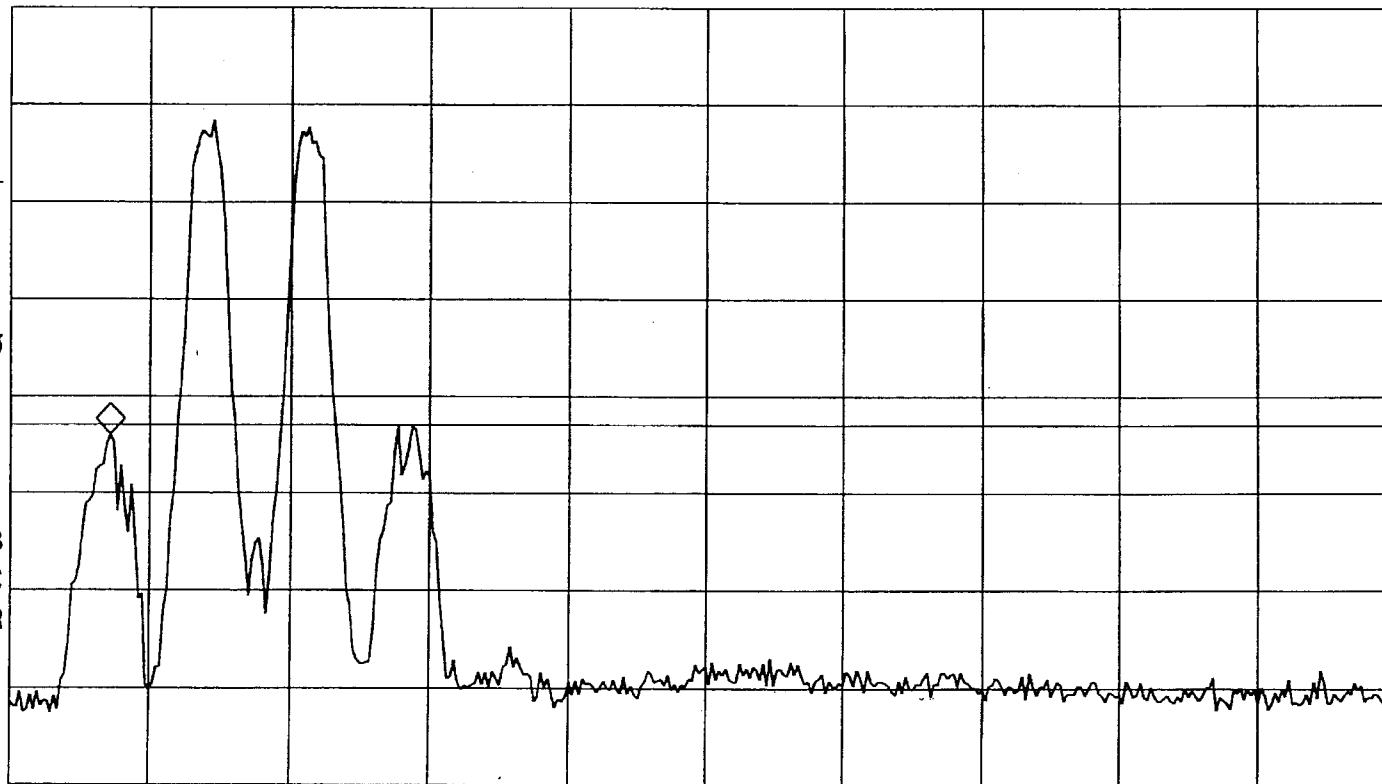
10: 34: 51 MAY 29, 2003

MKR 1.92508 GHz
-13.98 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.99000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

10:38:34 MAY 29, 2003

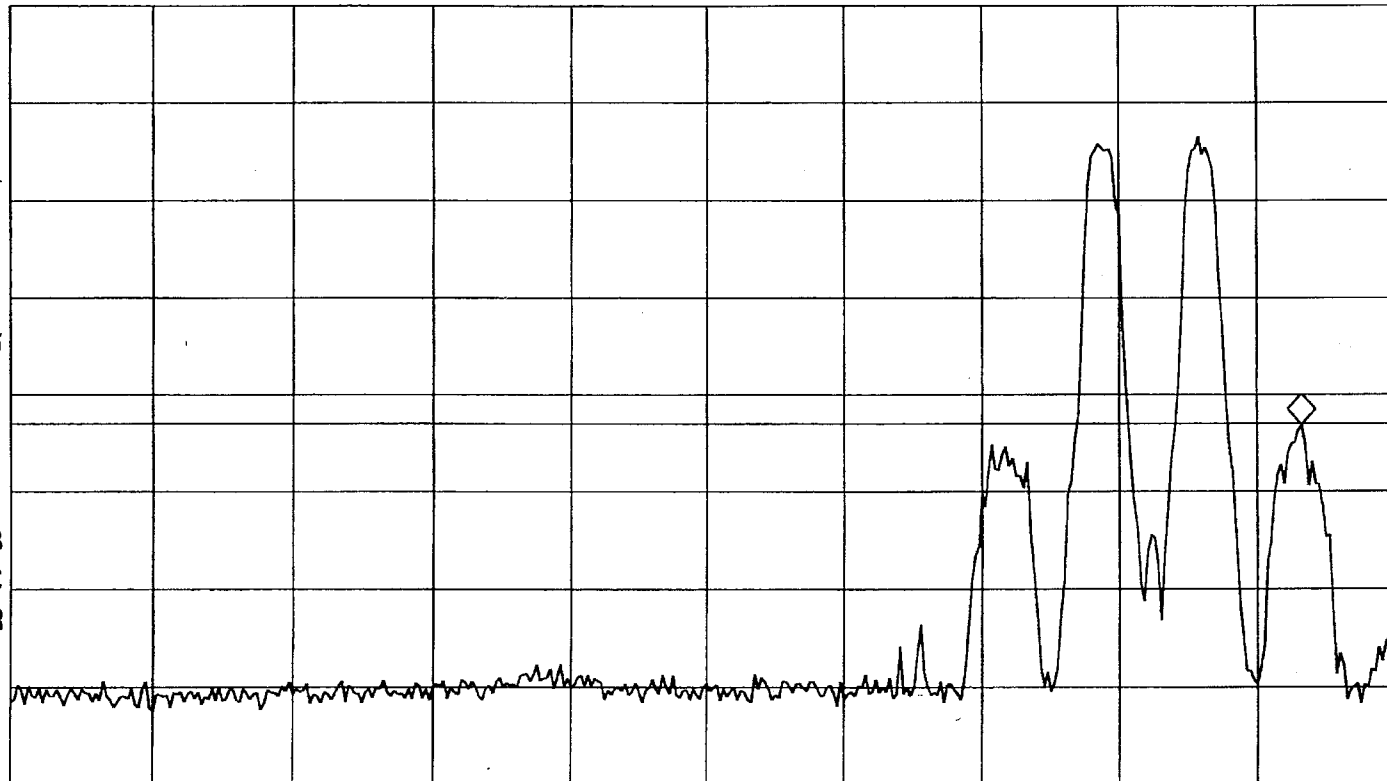
REF 30.0 dBm

AT 20 dB

MKR 1.99528 GHz
-13.14 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
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Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

10:38:42 MAY 29, 2003

REF 30.0 dBm

AT 20 dB

MKR 1.99003 GHz

16.59 dBm

PEAK

LOG

10

dB/

OFFST

20.0

dB

DL

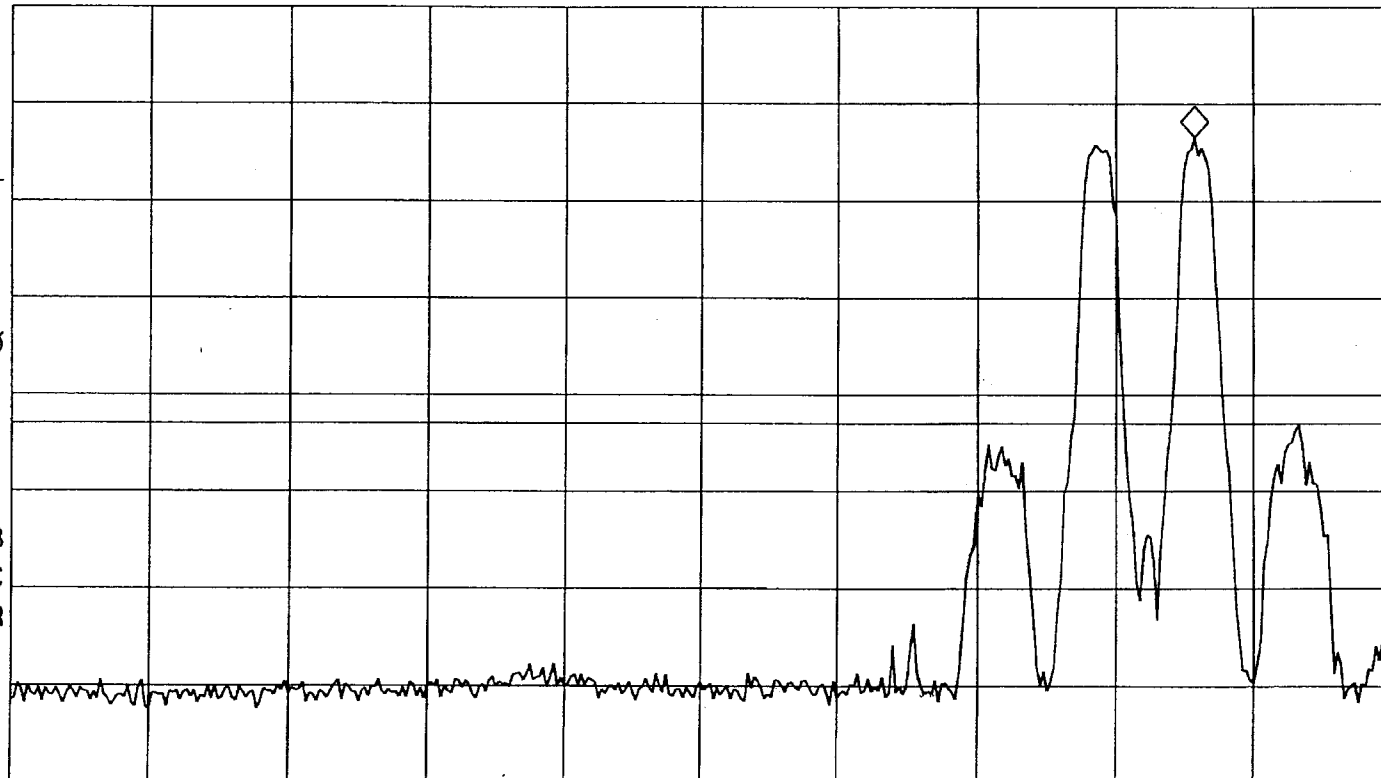
-13.0

dBm

VA SB

SC FC

CORR



START 1.93000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
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		T. Firkowski	
Date:	5/29/03		

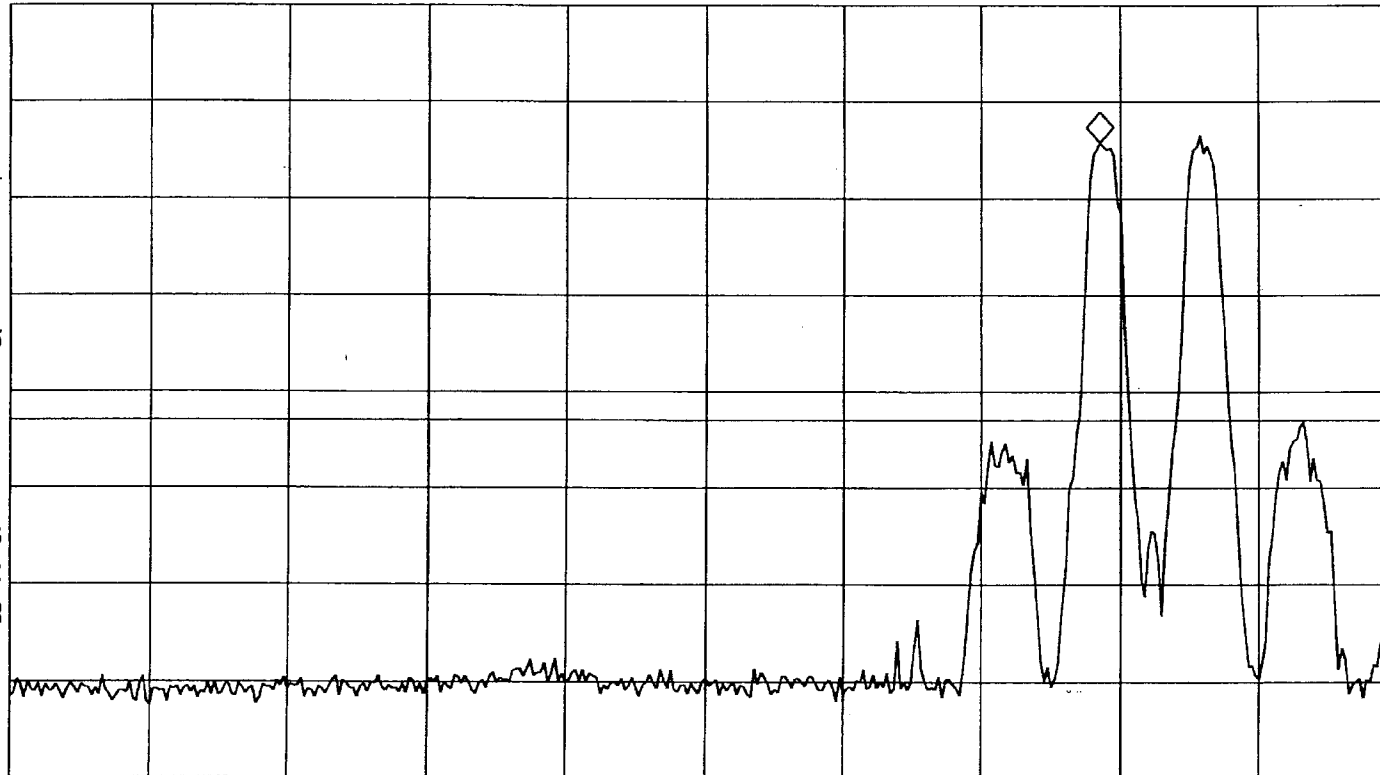
10:38:58 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.98495 GHz
15.80 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	CDMA - downlink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

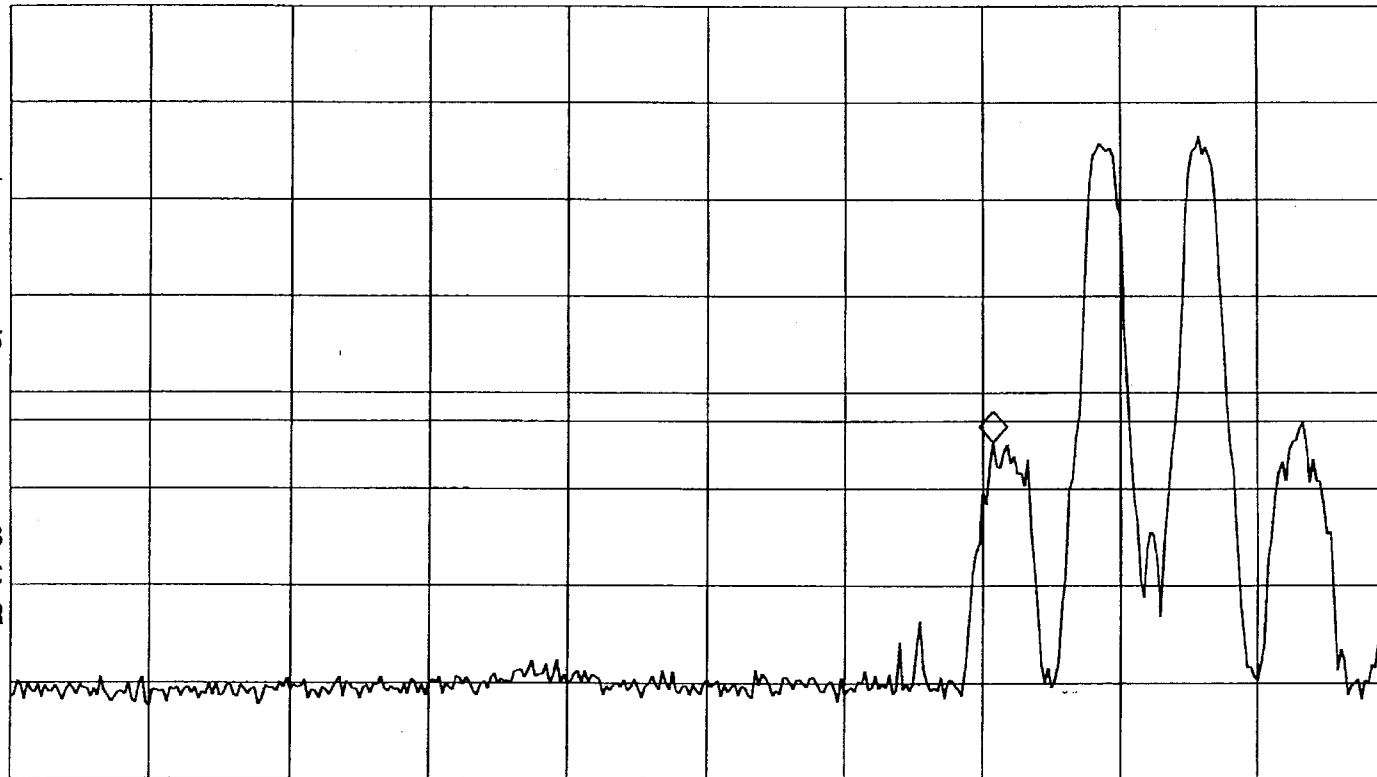
10: 39: 38 MAY 29, 2003

MKR 1.97953 GHz
-15.16 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 2.00000 GHz
SWP 20.0 msec