MEASUREMENT   PROCEDURE

*Bandwidth, Power Output, Spurious Emissions, and Power Spectral Density

1, Set up. See Figure 1.
2, Set the DUT in a Test mode with the Personal computer.
3, Set the Mode "Tx Cont" and "COUNT DOWN 0-15".(cotinuous simplex transmission)
4, Set the RF POWER OUT "High" (maximum power setting)
5, Set the RF CHANNEL "1" , "10" and "20" (lowend, mid, highend)
6, The measurement is made at each channels except for a Spurious Emissions.
   The Spurious Emissions are measured at ch "1" and "20"

*Processing Gain

1, Set up. See Figure 2.
2, Set the receiver unit (Base station) in a Test mode with the personal computer.
3, Set the following state.

    a. RF Channel ...."1"   (it must be same as the transmitter's channel)
    b. RF Power Level Select ....."Low"
    c. Mode & Data Select .... Rx Slave, and DATA SOURCE is "TRANSMIT ALL 0's"

4, Set the transmitter unit (Hand set) in a Test mode with the personal computer.
5, Set the following state.

    a. RF Channel ...."1"   (it must be same as the receiver's s channel)
    b. RF Power Level Select ....."Low"
    c. Mode & Data Select .... Tx Master, and DATA SOURCE is "TRANSMIT ALL 0's"

6, The system starts a full-duplex TDD link mode.
7, Measure the output power of transmitting unit at the input of the receiving unit. (S)
8, BER is measured every 10 sec.(in a test mode)
9, Step a signal generator in 50KHz increments across the pathband of the system.
   and record the signal generator level required to produce the recommended Bit
   Error Rate(BER=10-3). This level is the jamming level.
10, Calculate the Processing Gain.

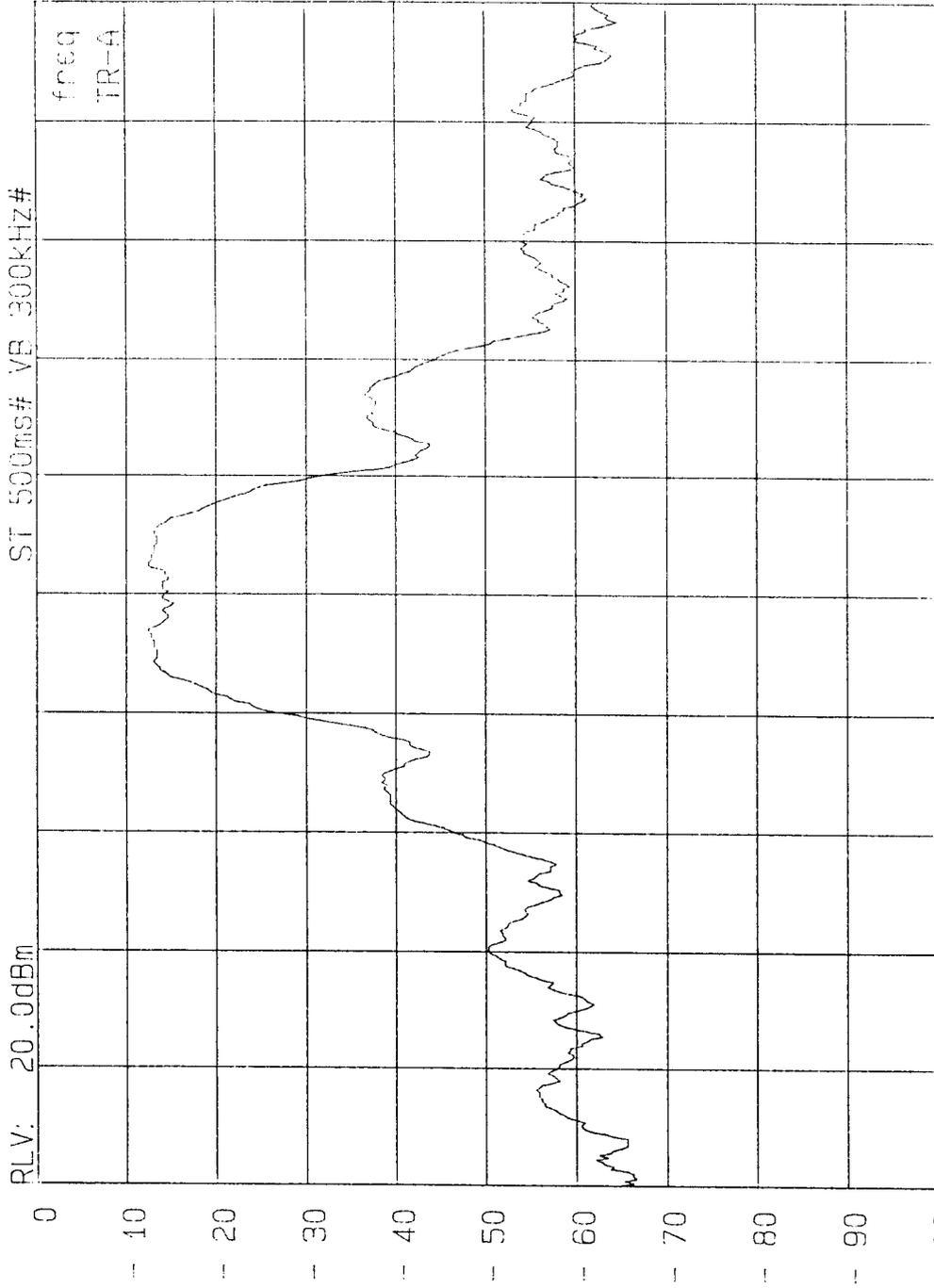**15.247(a)**   **BANDWIDTH**

The Model 43-727 (XX) is a direct sequence spread spectrum intentional radiator. The minimum 6dB bandwidth measured on the channels tested on the handset was 1500 KHZ on Channel 1.

The minimum 6 dB bandwidth measured on the channels tested on the base was 1500 KHZ on Channel 1.

PART 15.247(a)(2) BAND WIDTH
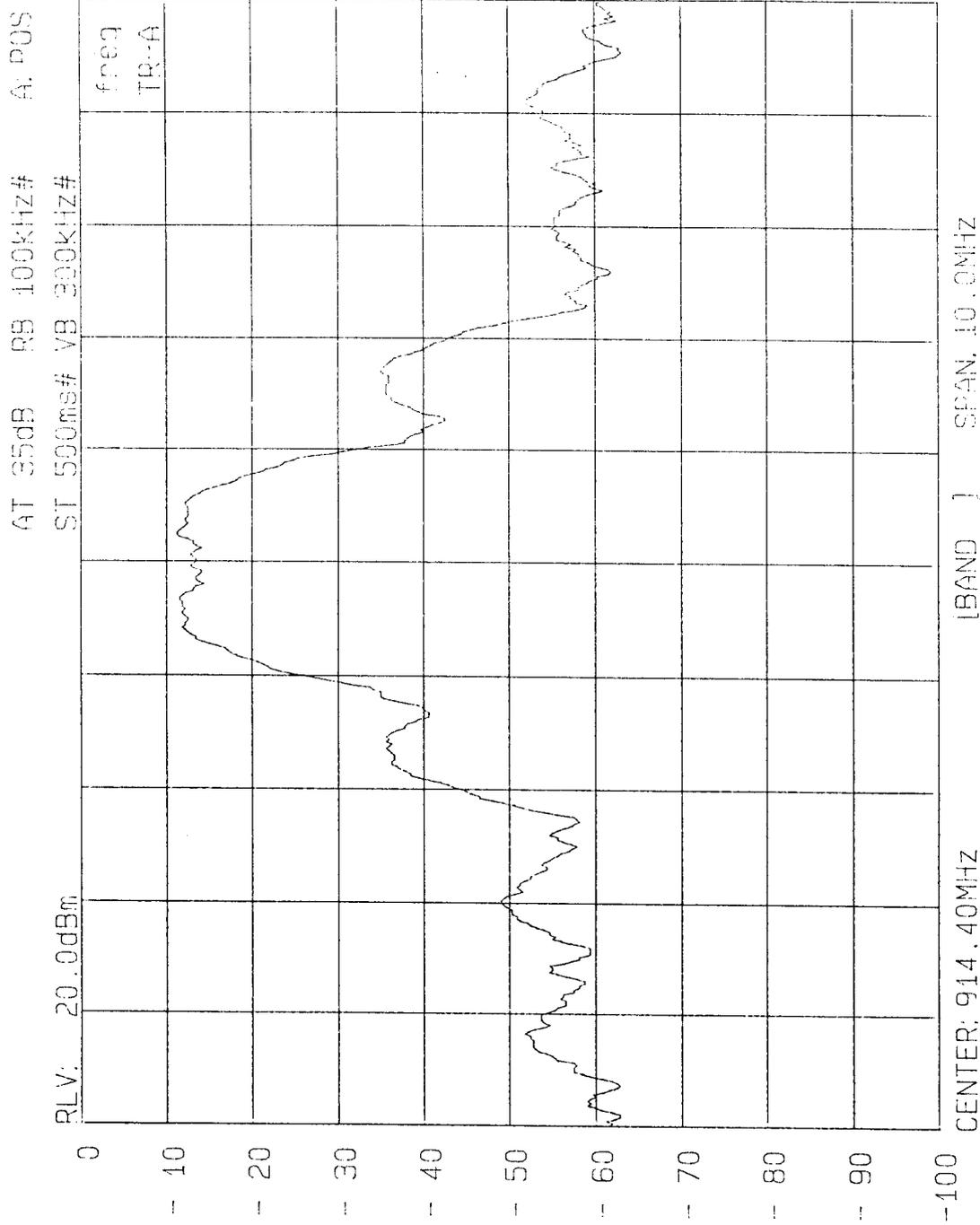
43-727 BASE   CH01 FCC15.247a2

RLV: 20.0dBm   AT 35dB   RB 100kHz#   4.POS

ST 500ms# VB 300kHz#   freq
TR-A

CENTER.904.20MHz   [BAND]   SPAN.10.0MHz

0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100

PART 15.247(a)(2) BAND WIDTH

43-727 BASE   CH10 FCC15.247a2

RLV. 20.0dBm   AT 35dB   RB 100kHz#   A.POS
                ST 500ms#   VB 300kHz#   freq
                                          TR A

CENTER: 914.40MHz   [BAND 1   SPAN: 10.0MHz

PART 15.247(a)(2) BAND WIDTH

43-727 BASE   CH20 FCC15.247a2
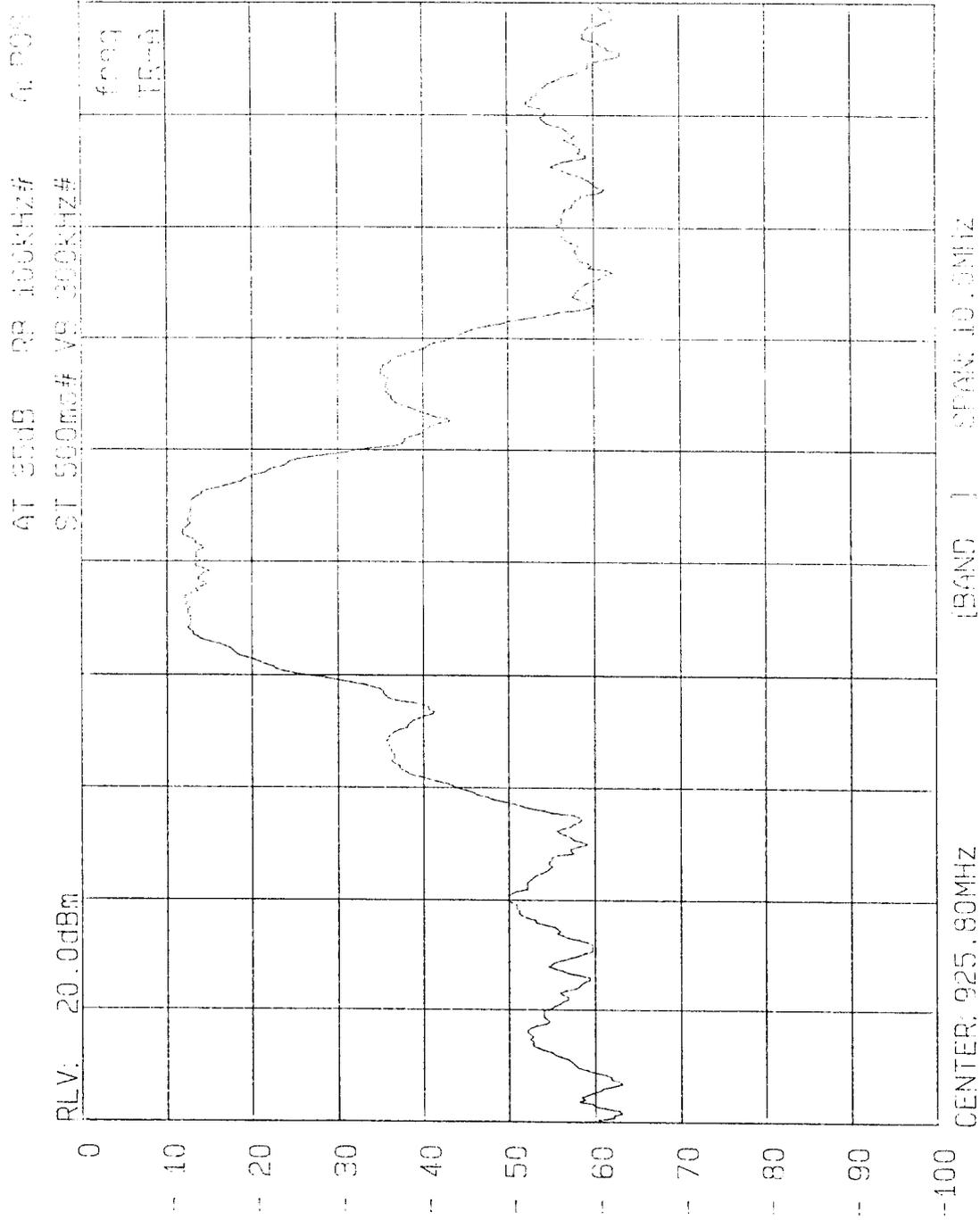
RLV. 20.0dBm   ΔT 35dB RB 100KHz#   4.3%
                     ST 500ms# VB 300KHz#
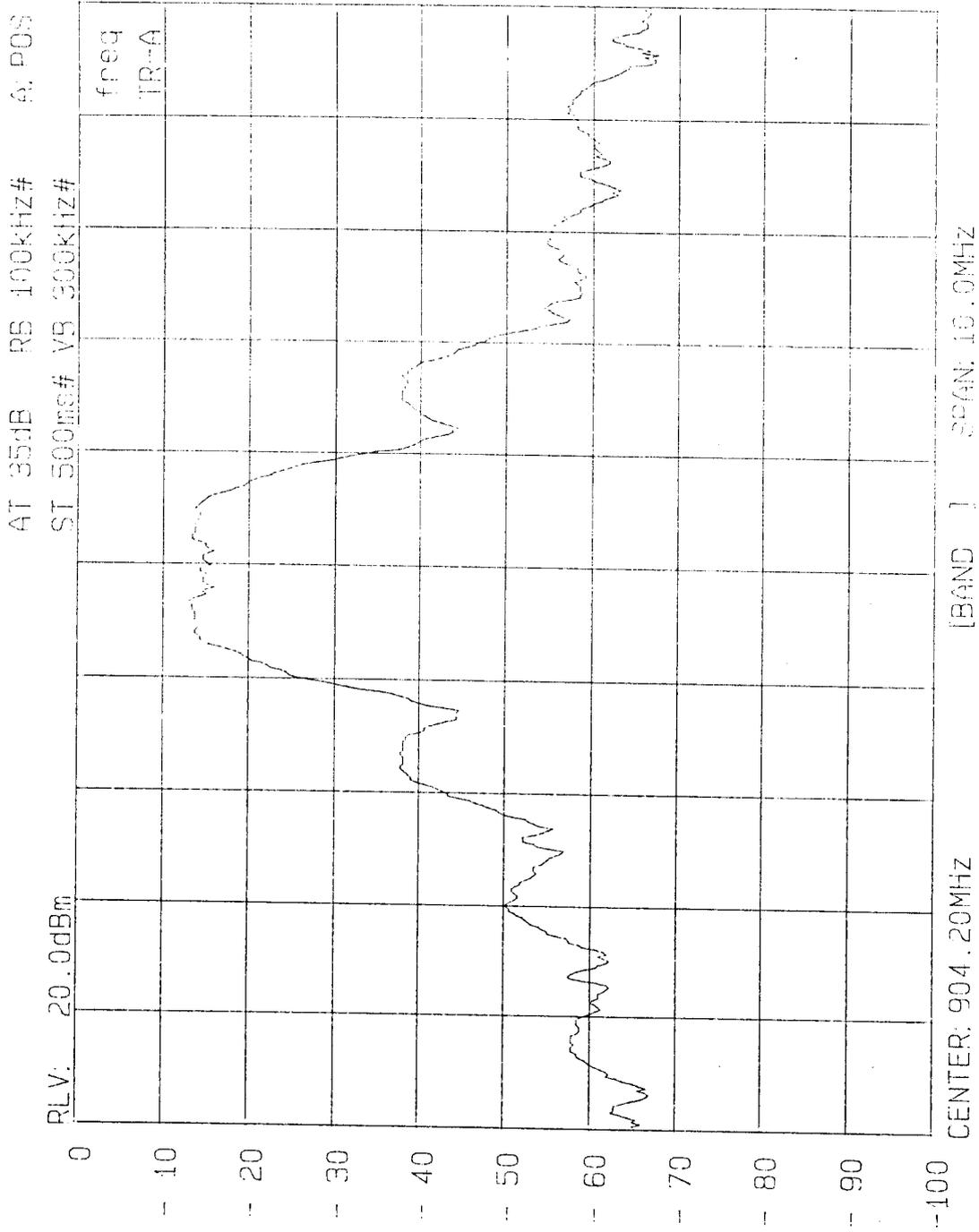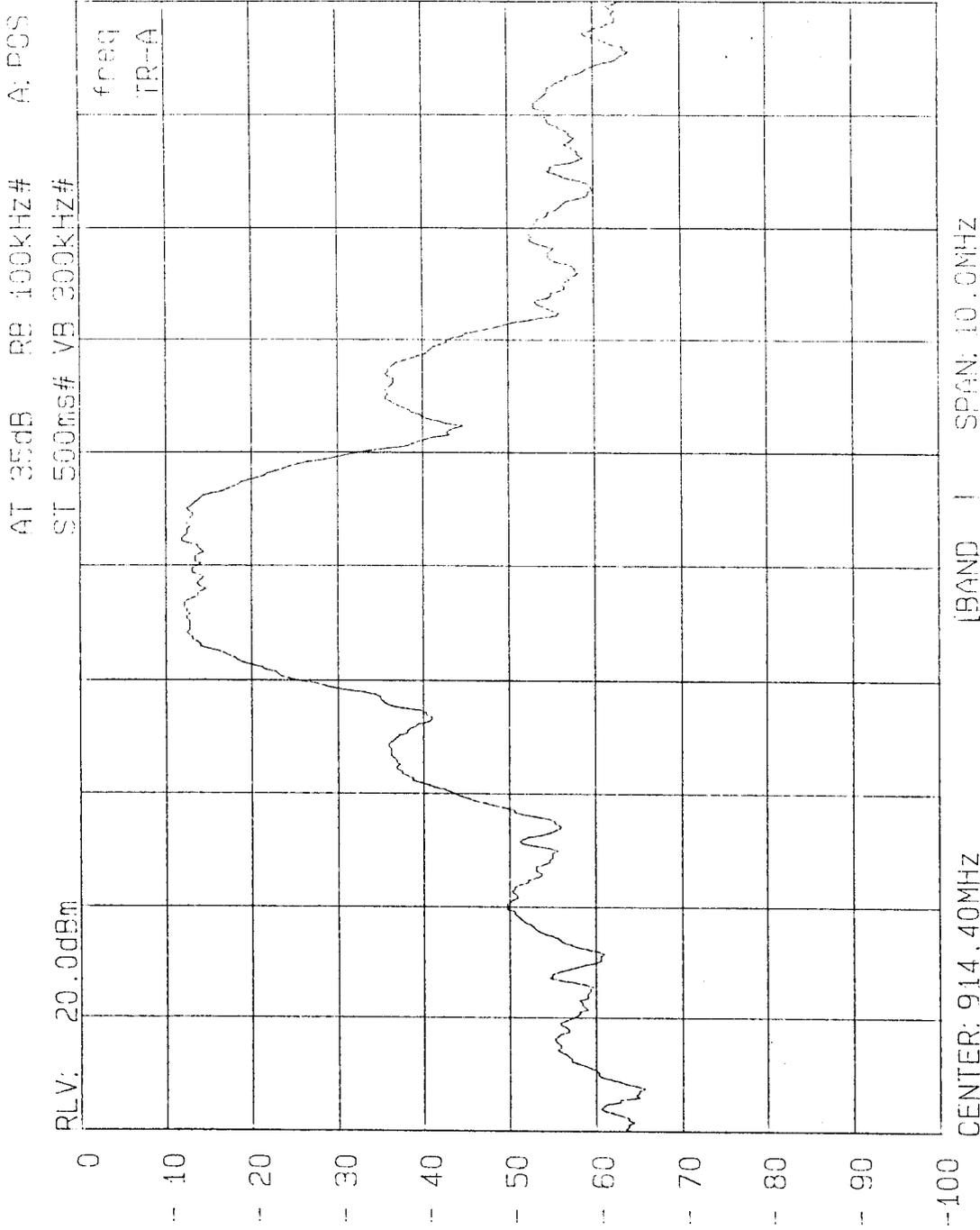
CENTER. 925.80MHz   [BAND 1   SPAN 10.0MHz

**PART 15.247(a)(2) BAND WIDTH**

43-727 HANDSET CH01 FCC15.247a2

PART 15.247(a)(2) BAND WIDTH

43-727 HANDSET CH10 FCC15.247a2

RLV.   20.0dBm   AT 35dB   RB 100kHz#   A.PCS

                       ST 500ms# VB 300kHz#   freq
                                                  TR-A

```
   0 ⌐

-10 ┤

-20 ┤

-30 ┤

-40 ┤

-50 ┤

-60 ┤

-70 ┤

-80 ┤

-90 ┤

-100 ⌐
```

CENTER: 914.40MHz   [BAND]   SPAN: 10.0MHz

PART 15.247(a)(2) BAND WIDTH

43-727 HANDSET CH20 FCC15.247a2

RLV: 20.0dBm
AT 35dB RB 100kHz# A.P0?
ST 500ms# VB 300kHz# freq TR-A

CENTER: 925.80MHz   [BAND 1]   SPAN: 10.0MHz
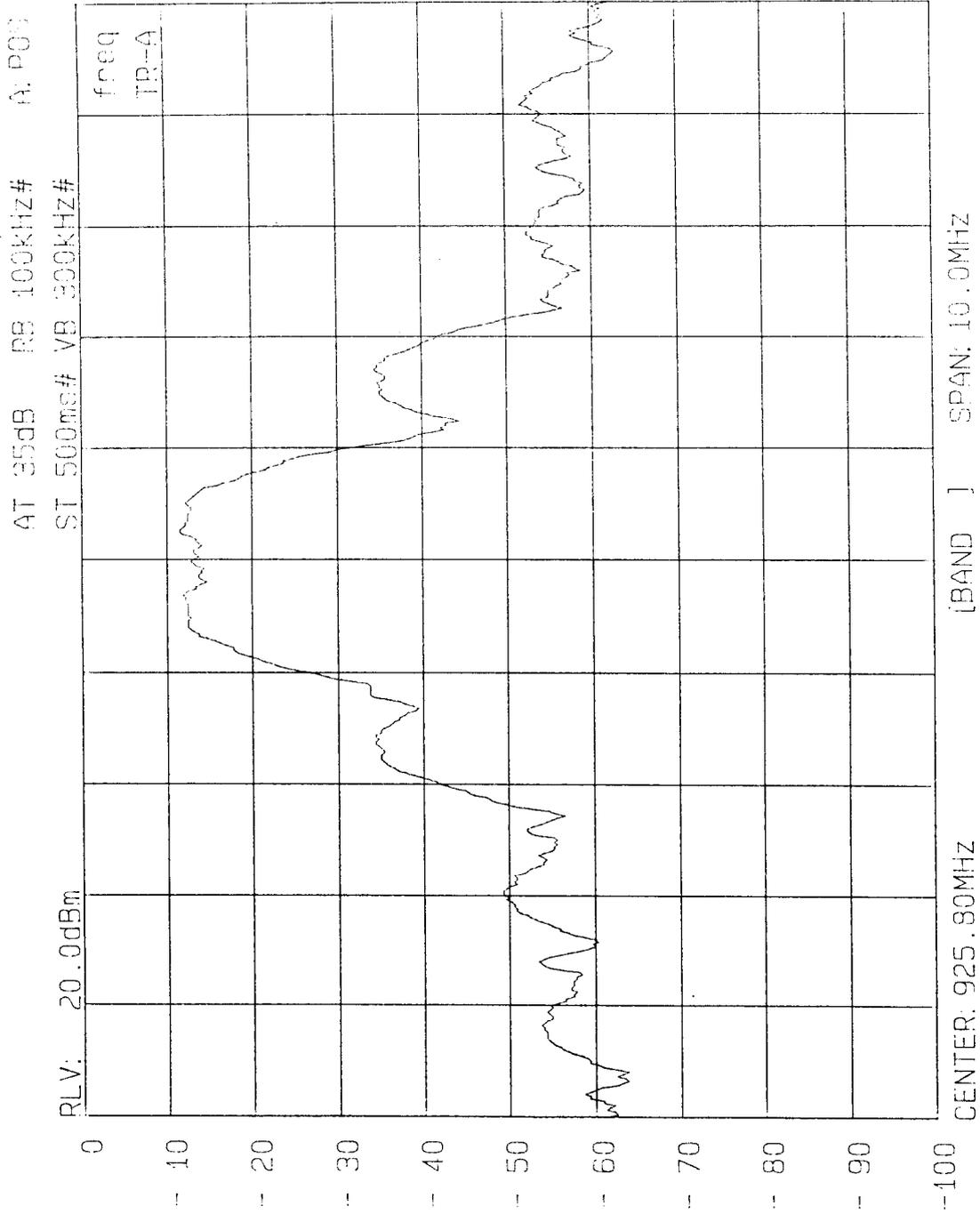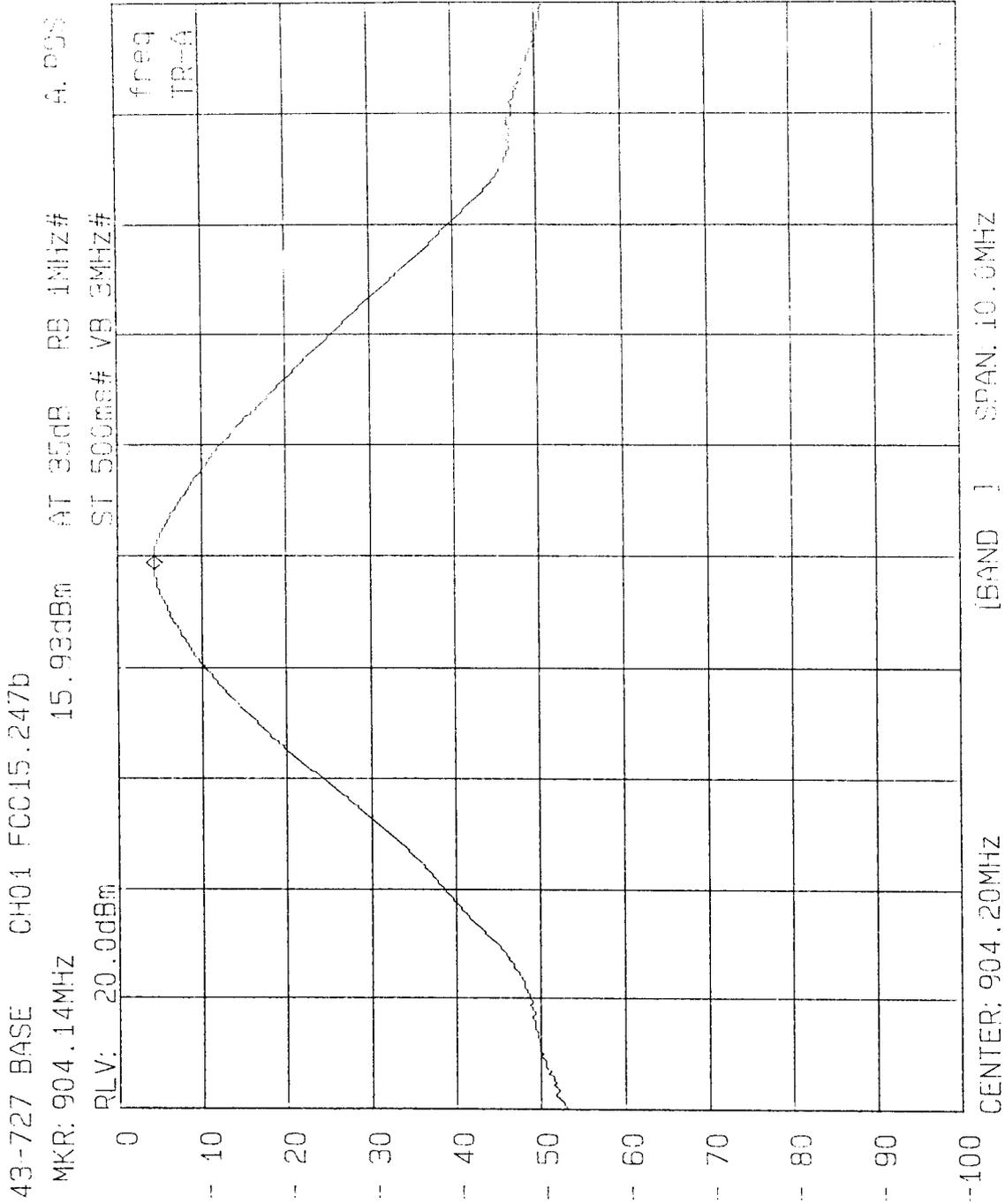
15.247 (b)   **POWER OUTPUT**

The maximum peak output power was 16.7 dBm on Channel 10 from the base unit and 16.6 dBm on Channel 20 from the handset.

The limit is +30 dBm.

PART 15.247(b)   POWER OUTPUT

43-727 BASE   CH01 FCC15.247b

MKR: 904.14MHz   15.93dBm   AT 35dB   RB 1MHz#

RLV: 20.0dBm   ST 500ms# VB 3MHz#

CENTER: 904.20MHz   [BAND 1   SPAN: 10.0MHz

freq
TR-A

0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100

PART 15.247(b)   POWER OUTPUT

43-727 BASE   CH10 FCC15.247b

MKR: 914.34MHz   16.65dBm   AT 35dB   RB 1MHz#   A.POS

RLV. 20.0dBm   ST 500ms#   VB 3MHz#   freq
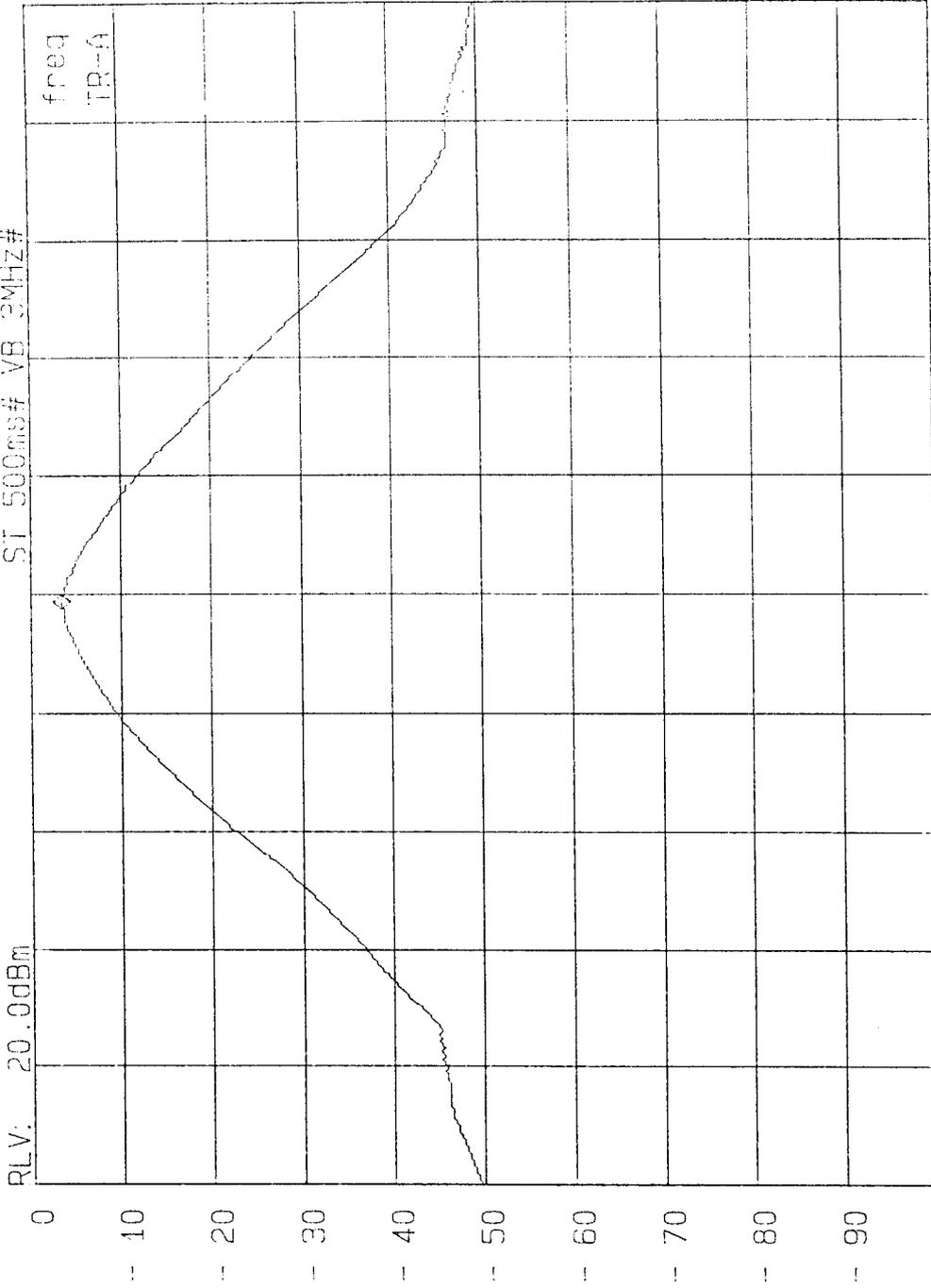   TR-A

CENTER: 914.40MHz   [BAND 1]   SPAN: 10.0MHz

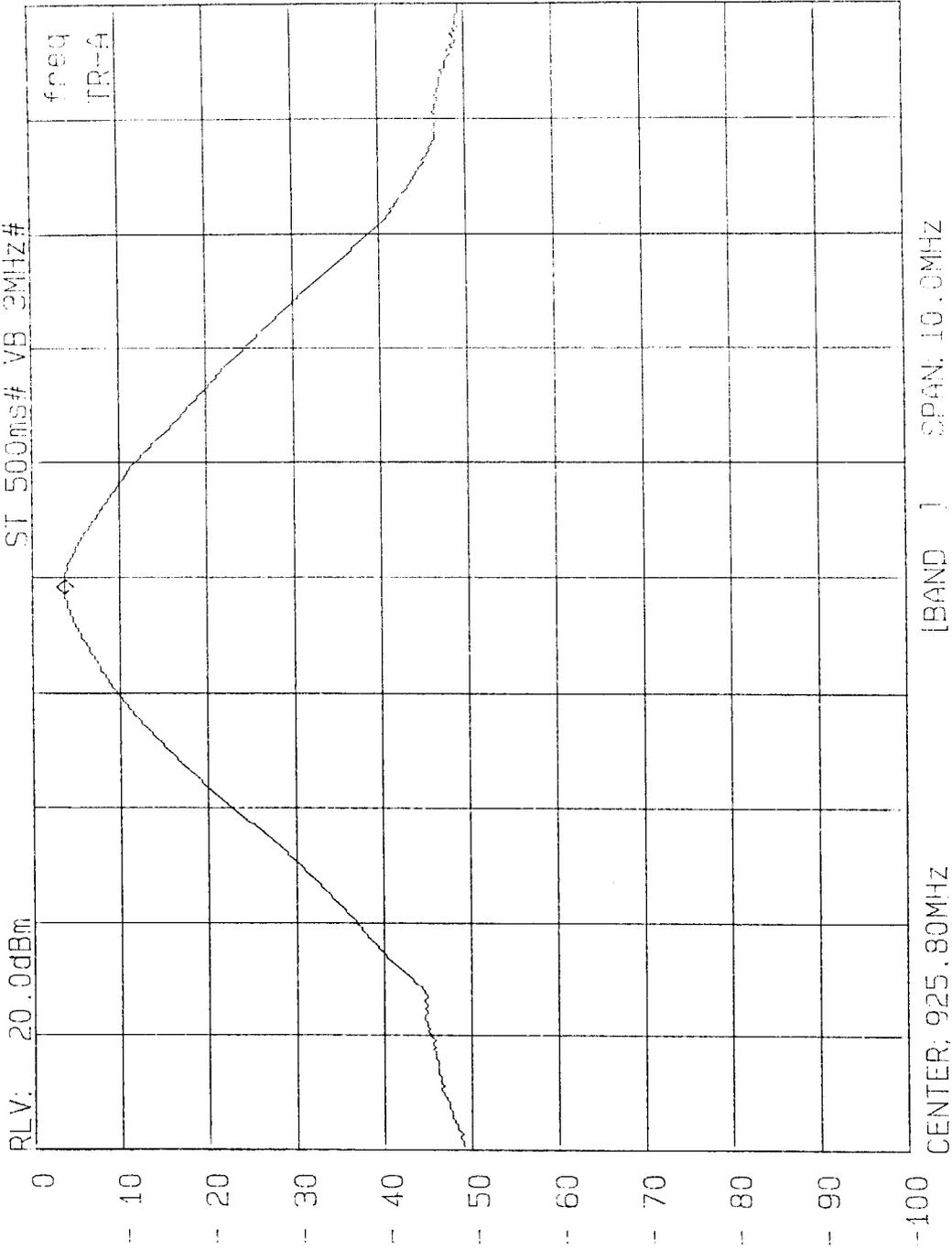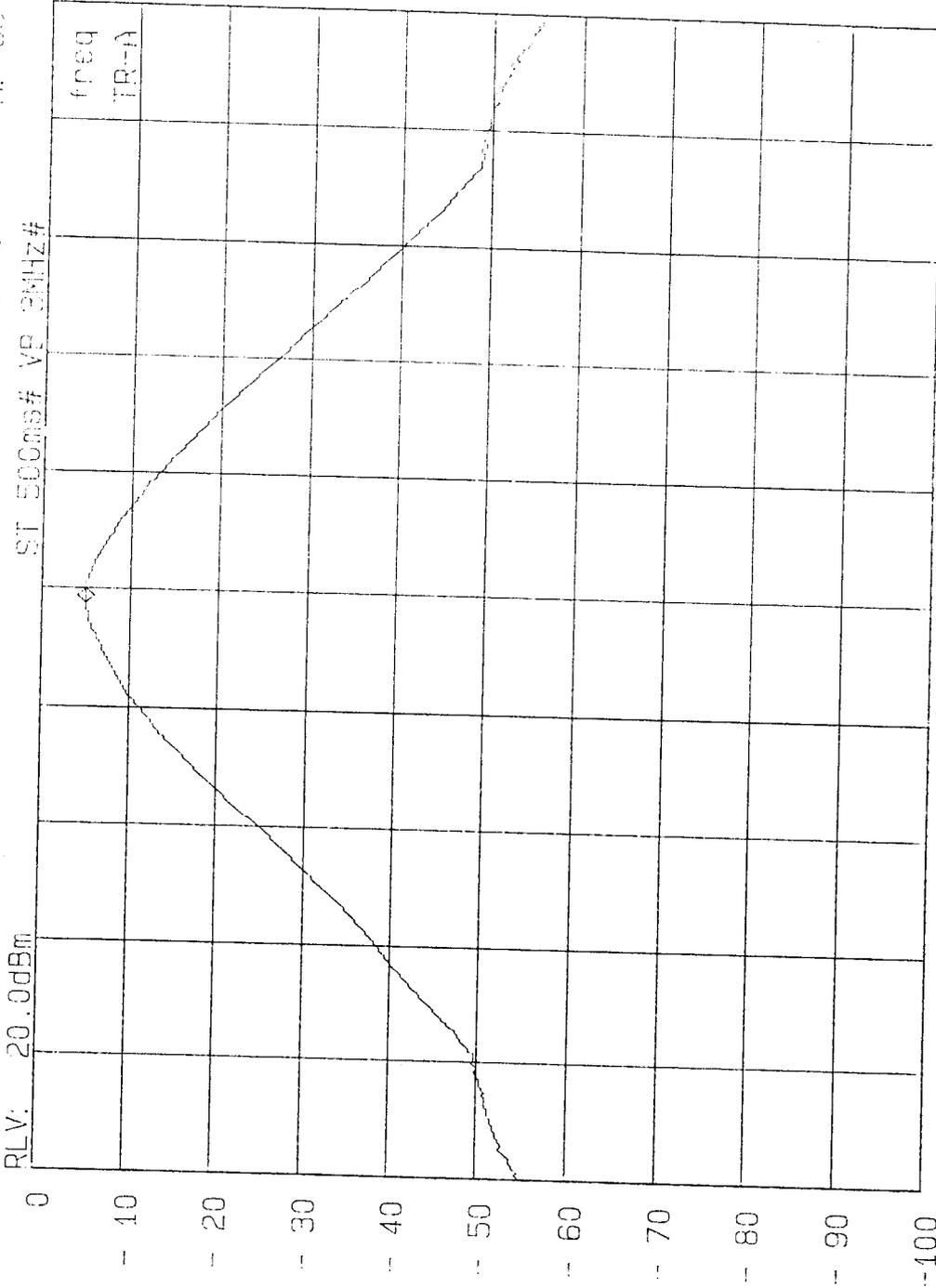**PART 15.247(b)   POWER OUTPUT**

43-727 BASE   CH20 FCC15.247b

MKR: 925.72MHz   16.49dBm

RLV: 20.0dBm

CENTER: 925.80MHz   [BAND 1   SPAN: 10.0MHz

RB 1MHz#
VB 2MHz#
AT 35dB
ST 500ms#

A. POS
freq
TR-A

PART 15.247(b)   POWER OUTPUT

43-727 HANDSET CH01 FCC.15.247b

MKR. 904.14MHz   15.26dBm

RLV.   20.0dBm   AT 35dB   RB 1MHz#   freq
                    ST 500ms# VB 3MHz#   TR-A


```
   0
-  10
-  20
-  30
-  40
-  50
-  60
-  70
-  80
-  90
-100
```

CENTER. 904.20MHz   [BAND 1]   SPAN. 10.0MHz

PART 15.247(b)   POWER OUTPUT

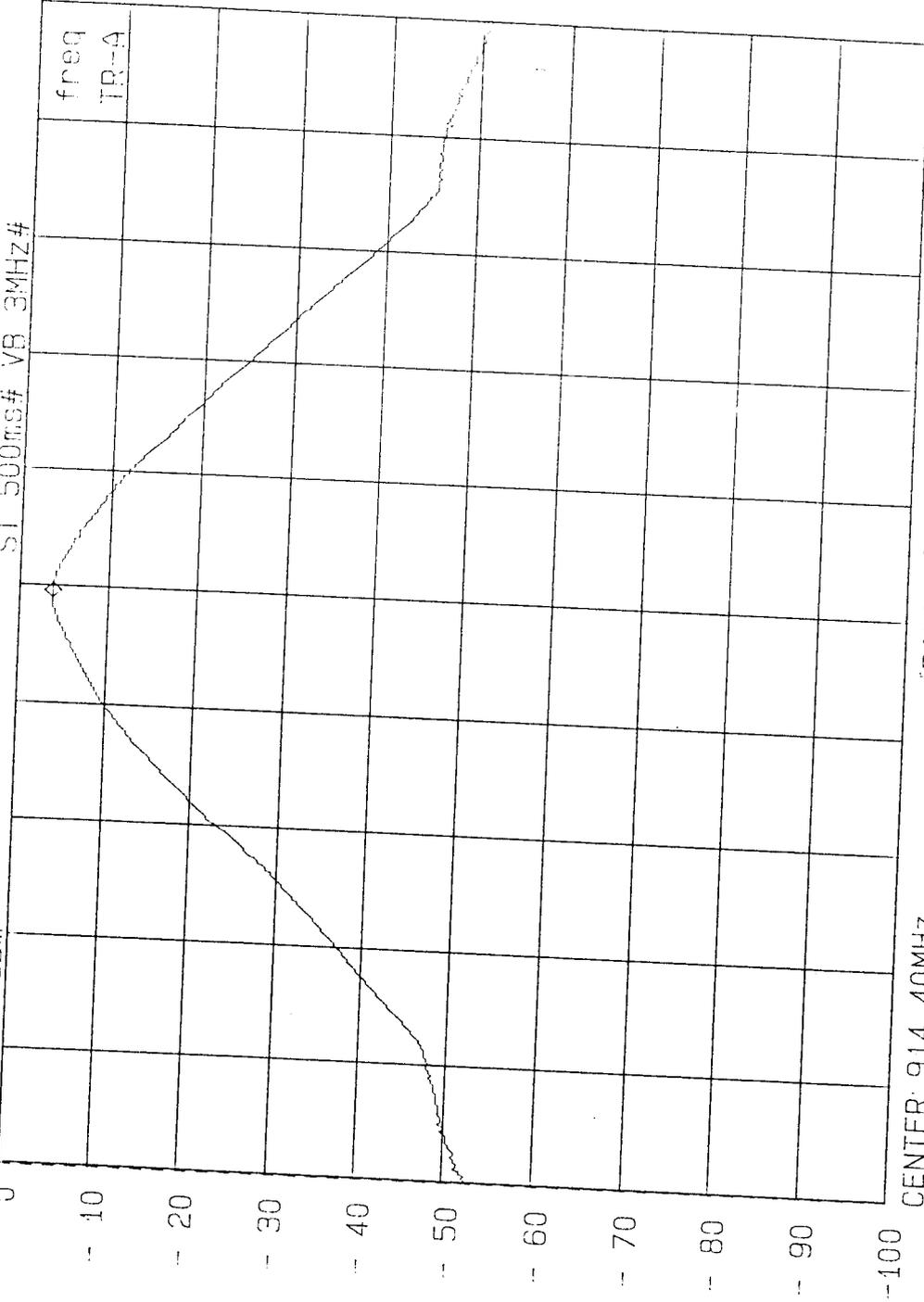43-727 HANDSET CH10 FCC15.247b

MKR. 914.36MHz   16.48dBm

RLV. 20.0dBm   AT 35dB   RB 1MHz#   A.POS

ST 500ms#   VB 3MHz#   freq

CENTER. 914.40MHz   [BAND 1   SPAN. 10.0MHz

PART 15.247(b)   POWER OUTPUT

43-727 HANDSET CH20 FCC15.247b

MKR: 925.74MHz   16.60dBm

RLV: 20.0dBm   AT 35dB   RB 1MHz#   A.POS

                ST 500ms# VB 3MHz#   freq

                                        TR-A

0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100

CENTER: 925.80MHz   [BAND 1   SPAN: 10.0MHz