2.7 Peak Power Within the Band 2.4 – 2.4835 GHz per FCC Section 15.247(b)

Peak power within the band 2.4 – 2.4835 GHz has been measured with a spectrum analyzer by connecting the spectrum analyzer directly via a short cable to the antenna output terminals or across the antenna leads on the PCB as specified by the manufacturer. The spectrum analyzer was set for a 50 Ω impedance with the VBW $\geq$ RBW $\geq$ 6 dB bandwidth for the 64 k data rates. For data rates greater than 64 k, the spectrum analyzer did not have a RBW greater than the 6 B bandwidth, therefore this data was taken using the channel power function of the spectrum analyzer. The results of the measurements are given in Table 3 and Figure 3a through Figure 3o.

The EUT was set to a maximum power allowed by the FCC. Since the EUT may incorporate an antenna of directional gain greater than 6 dBi (up to 23 dBi may be used), the maximum output power to meet 15.247(b)(3) is +25 dBm.

TABLE 3a
PEAK POWER OUTPUT

Test Date: **August 31, 1999**
UST Project: **99-723**
Customer: **LinkaNet Labs**
Model: **FIRELINK 2000**

64k Data Rate

Frequency of Fundamental (GHz)	Measurement (dBm)*	Measurement (Watt)*	FCC Limit (Watt)
2.4035	23.6	0.229	0.316
2.4385	22.4	0.174	0.316
2.4735	22.1	0.162	0.316

*** Measurement includes 0.4 cable loss**

Tester
Signature: _____ **Name:** **Tim R. Johnson**

TABLE 3b
PEAK POWER OUTPUT

Test Date: **August 31, 1999**
UST Project: **99-723**
Customer: **LinkaNet Labs**
Model: **FIRELINK 2000**

128k Data Rate

Frequency of Fundamental (GHz)	Measurement (dBm)*	Measurement (Watt)*	FCC Limit (Watt)
2.4060	24.9	0.309	0.316
2.4360	24.6	0.288	0.316
2.4745	24.0	0.251	0.316

*** Measurement includes 0.4 cable loss**

Tester
Signature: _____ **Name:** **Tim R. Johnson**

TABLE 3c
PEAK POWER OUTPUT

Test Date: **August 31, 1999**
UST Project: **99-723**
Customer: **LinkaNet Labs**
Model: **FIRELINK 2000**

256k Data Rate

Frequency of Fundamental (GHz)	Measurement (dBm)*	Measurement (Watt)*	FCC Limit (Watt)
2.4110	24.5	0.281	0.316
2.4410	23.6	0.229	0.316
2.4680	22.9	0.195	0.316

*** Measurement includes 0.4 cable loss**

Tester
Signature: _____ **Name:** **Tim R. Johnson**

TABLE 3d
PEAK POWER OUTPUT

Test Date: **August 31, 1999**
UST Project: **99-723**
Customer: **LinkaNet Labs**
Model: **FIRELINK 2000**

384k Data Rate

Frequency of Fundamental (GHz)	Measurement (dBm)*	Measurement (Watt)*	FCC Limit (Watt)
2.4210	24.2	0.263	0.316
2.4410	24.0	0.251	0.316
2.4580	23.8	0.240	0.316

*** Measurement includes 0.4 cable loss**

Tester
Signature: _____ **Name:** **Tim R. Johnson**

TABLE 3e
PEAK POWER OUTPUT

Test Date: **August 31, 1999**
UST Project: **99-723**
Customer: **LinkaNet Labs**
Model: **FIRELINK 2000**

512k Data Rate

Frequency of Fundamental (GHz)	Measurement (dBm)*	Measurement (Watt)*	FCC Limit (Watt)
2.4210	24.4	0.275	0.316
2.4410	23.4	0.219	0.316
2.4580	23.5	0.224	0.316

*** Measurement includes 0.4 cable loss**

Tester
Signature: _____ **Name:** **Tim R. Johnson**

Figure 3a.
Peak Power per FCC Section 15.247(b) (Low), 64k Data Rate

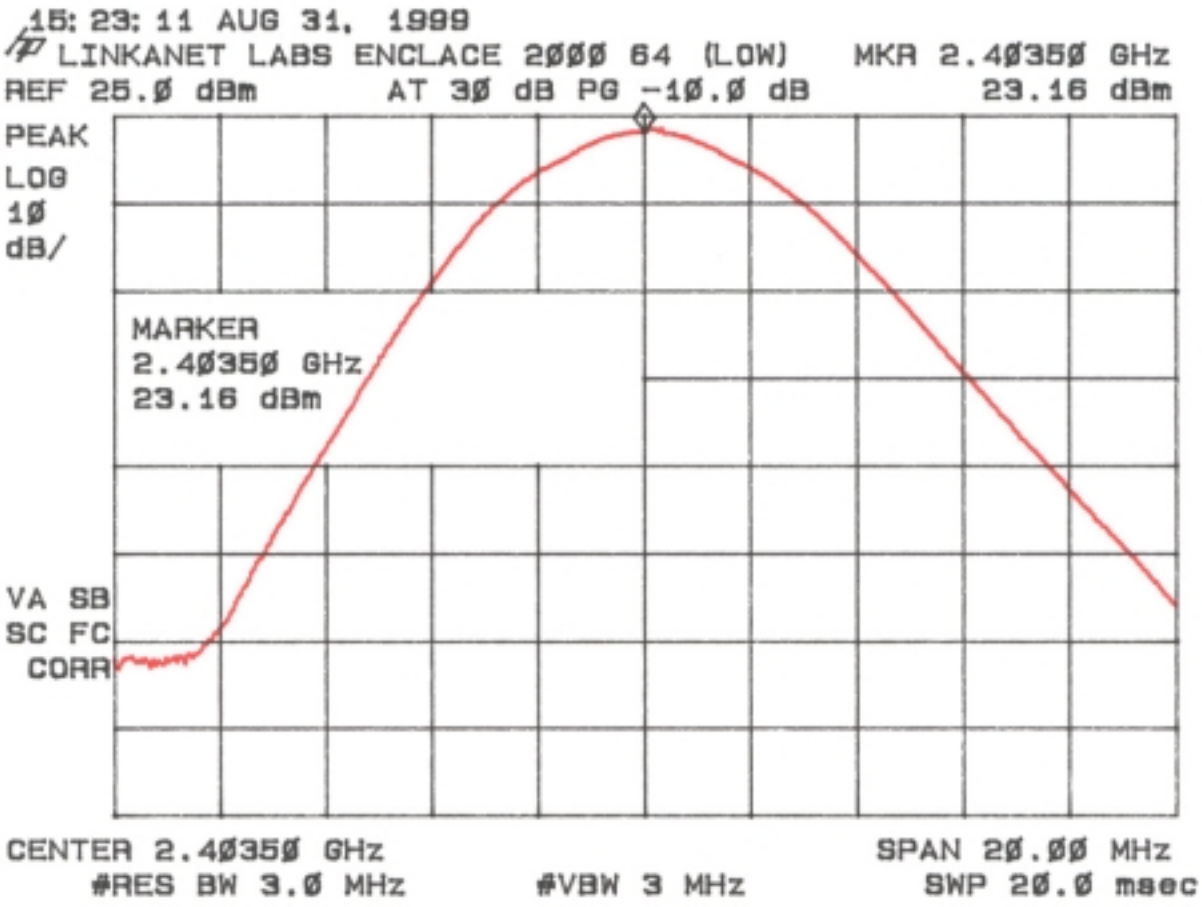

Figure 3b.
Peak Power per FCC Section 15.247(b) (Mid), 64k Data Rate

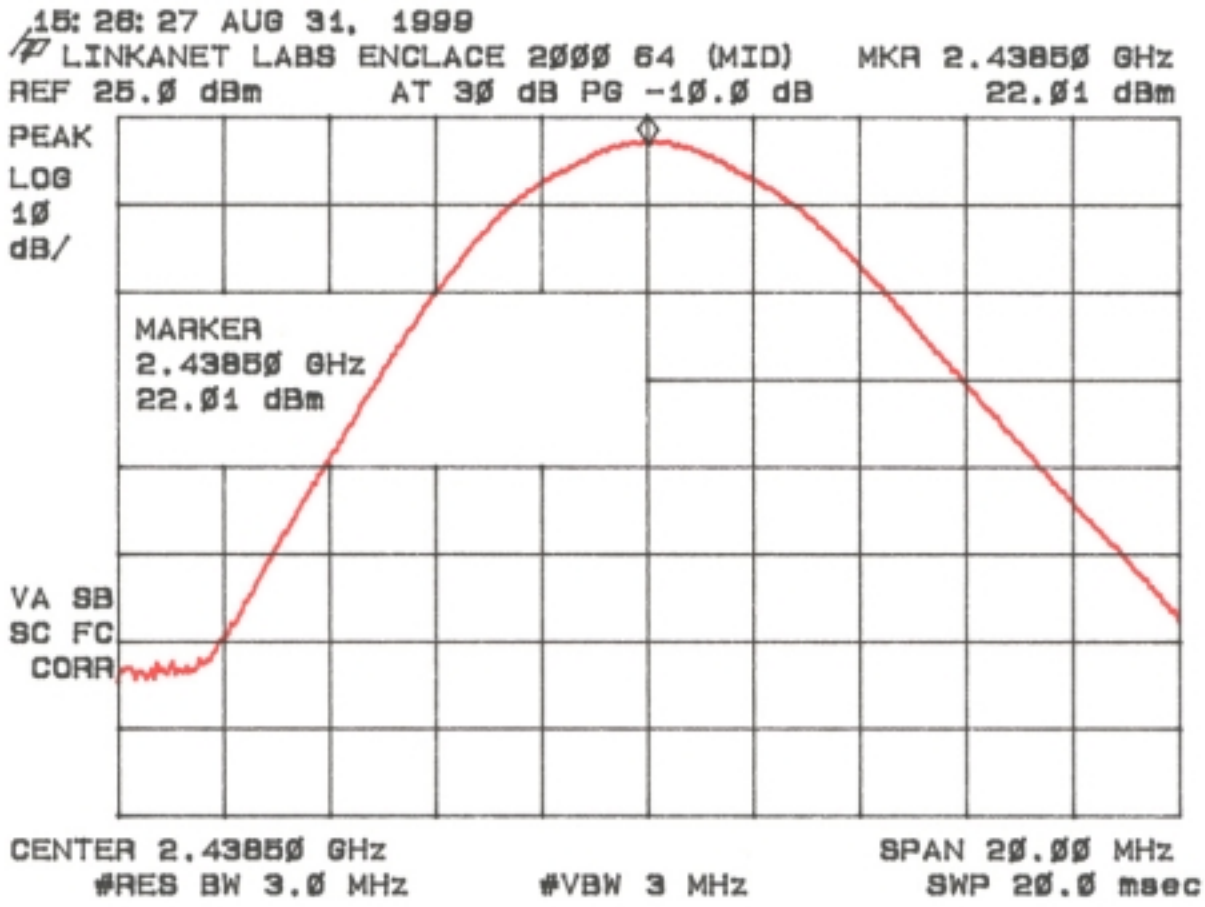

Figure 3c.
Peak Power per FCC Section 15.247(b) (High), 64k Data Rate

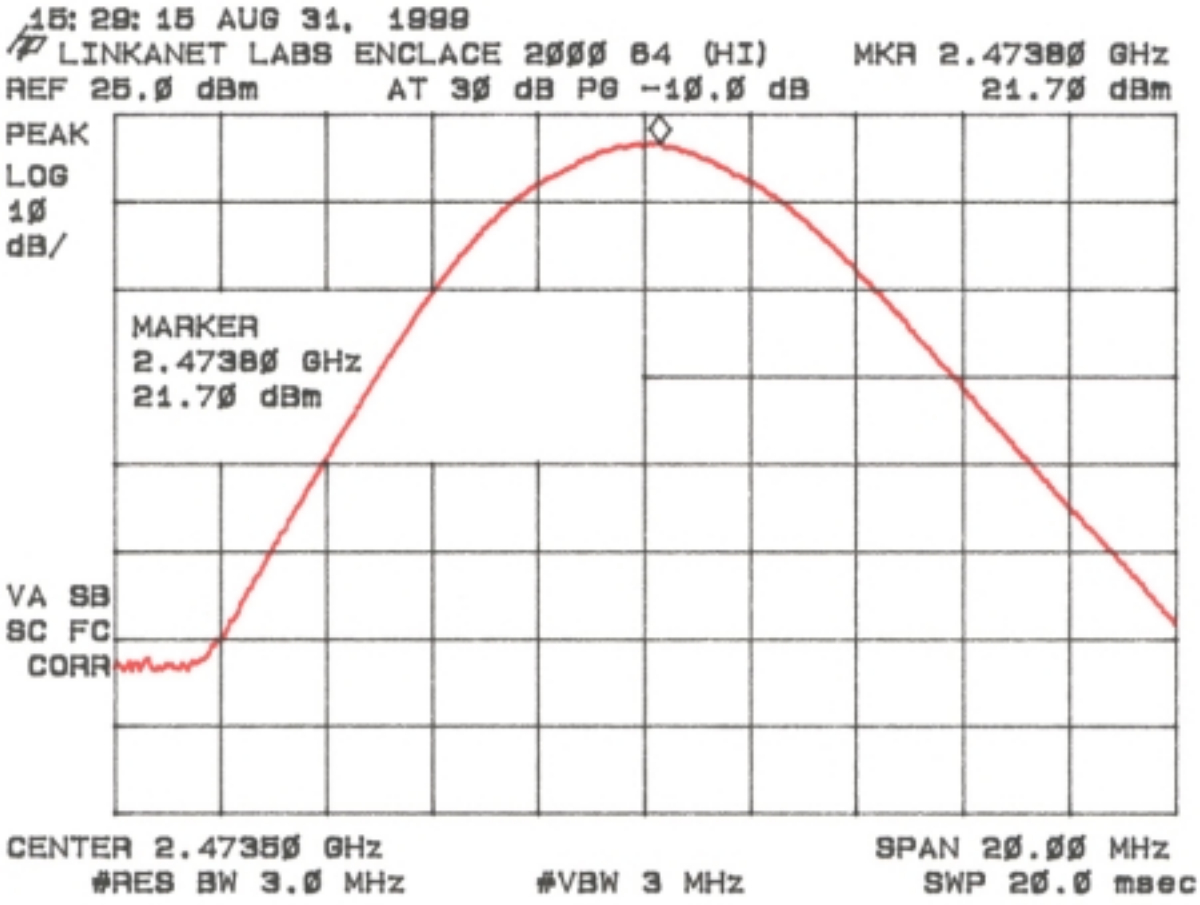

Figure 3d.
Peak Power per FCC Section 15.247(b) (Low), 128k Data Rate

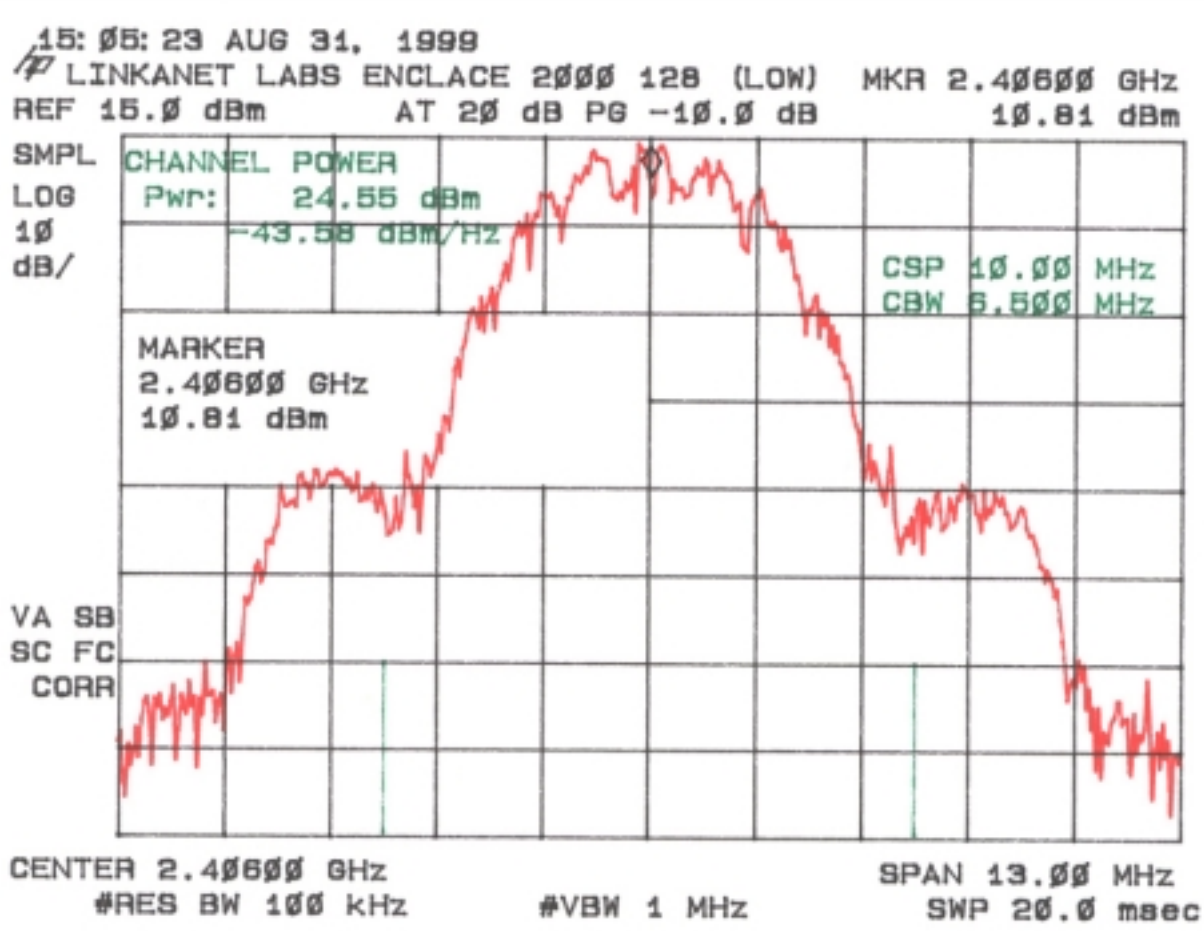

Figure 3e.
Peak Power per FCC Section 15.247(b) (Mid), 128k Data Rate

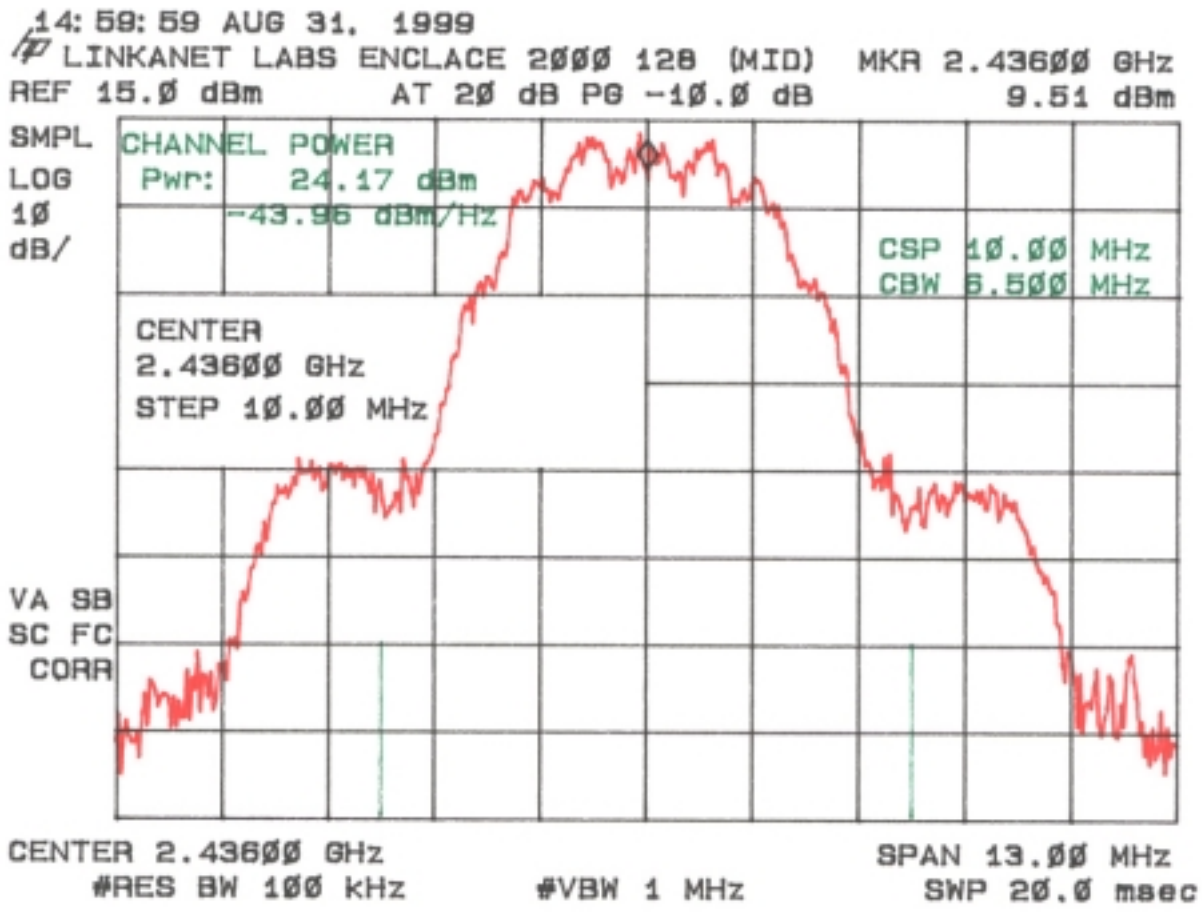

Figure 3f.
Peak Power per FCC Section 15.247(b) (High), 128k Data Rate

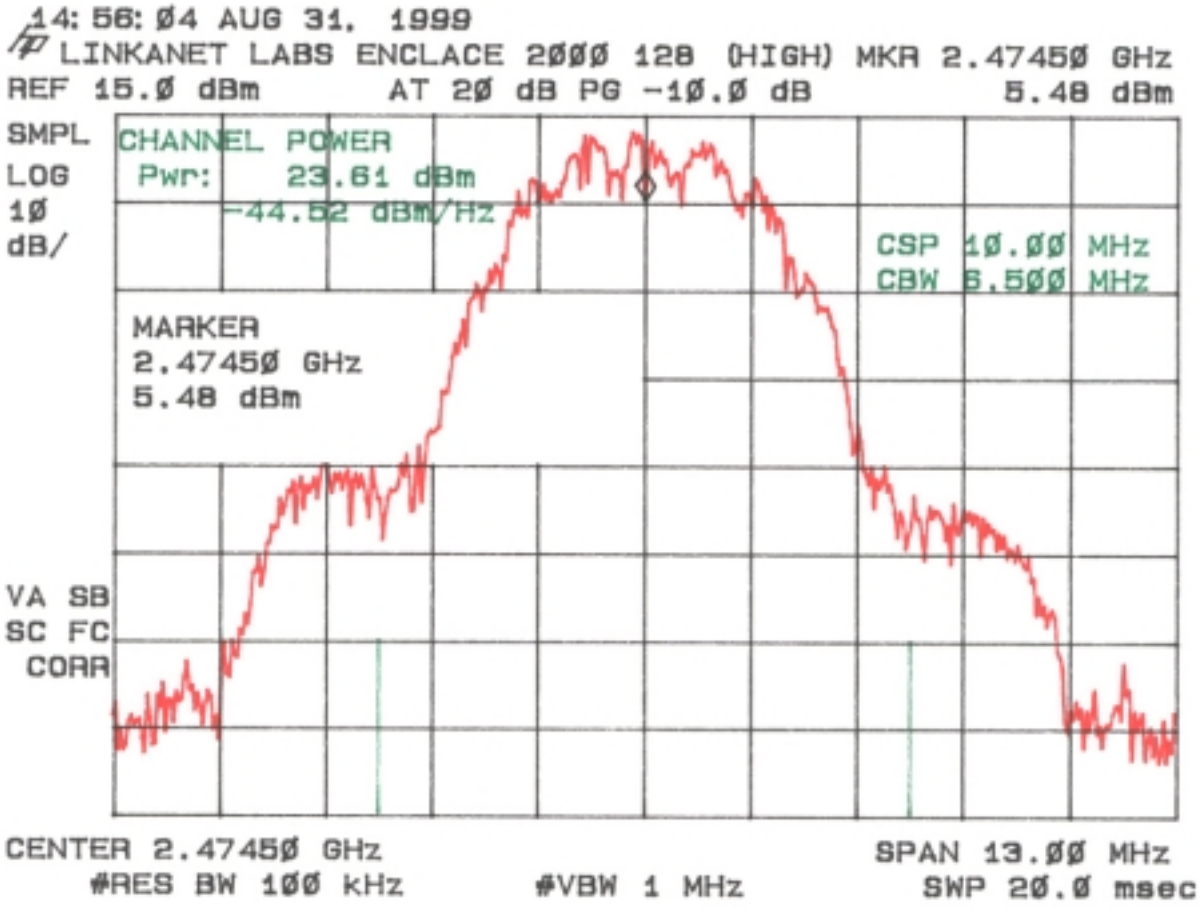

Figure 3g.
Peak Power per FCC Section 15.247(b) (Low), 256k Data Rate

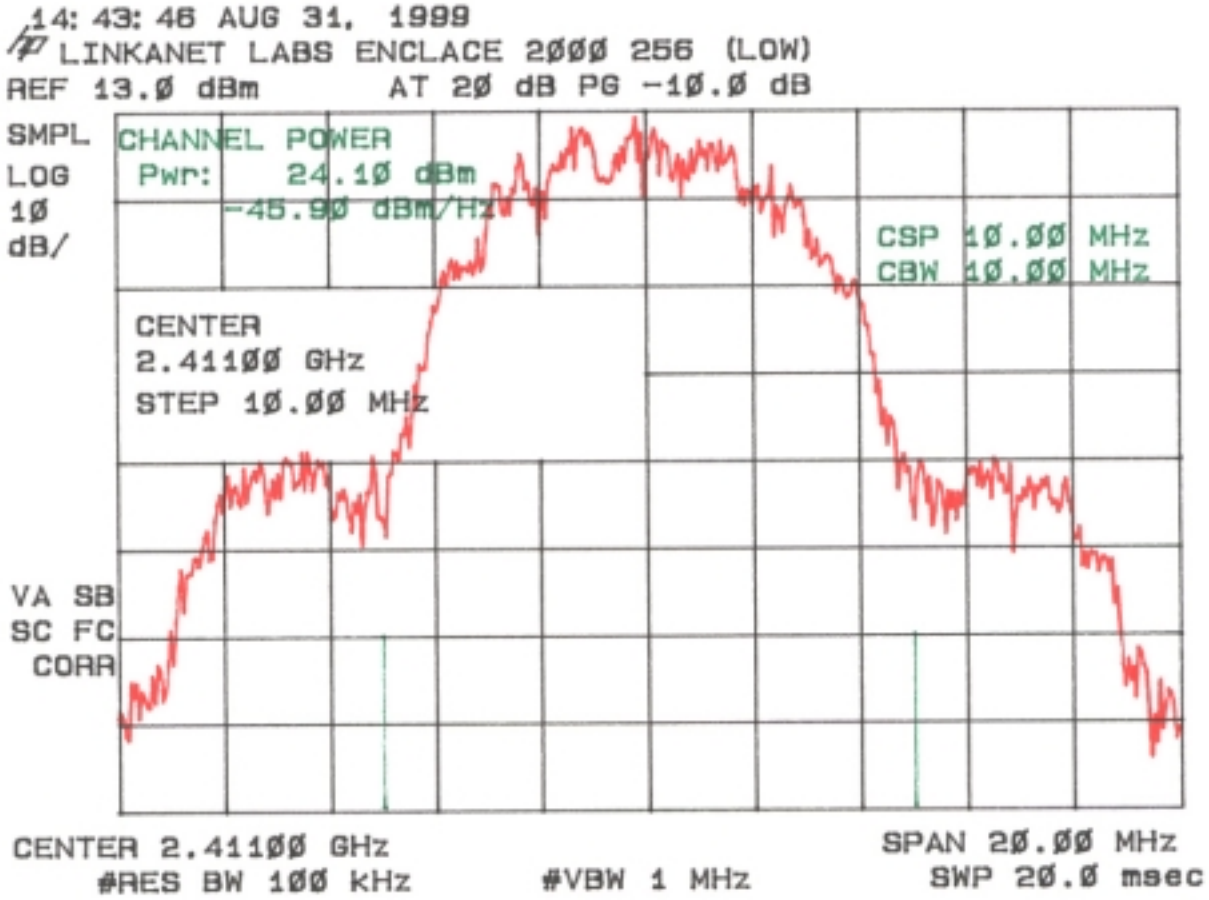

Figure 3h.
Peak Power per FCC Section 15.247(b) (Mid), 256k Data Rate

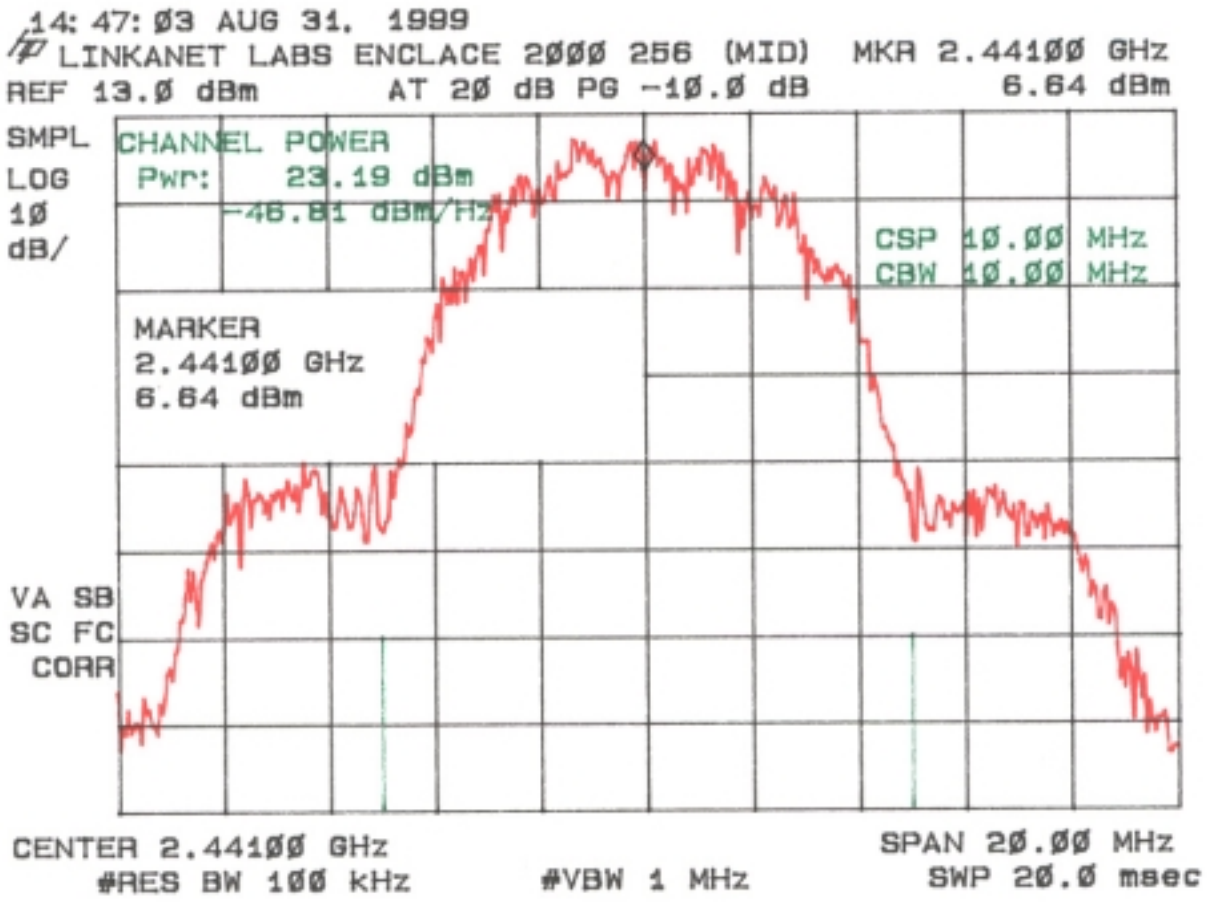

Figure 3i.
Peak Power per FCC Section 15.247(b) (High), 256k Data Rate

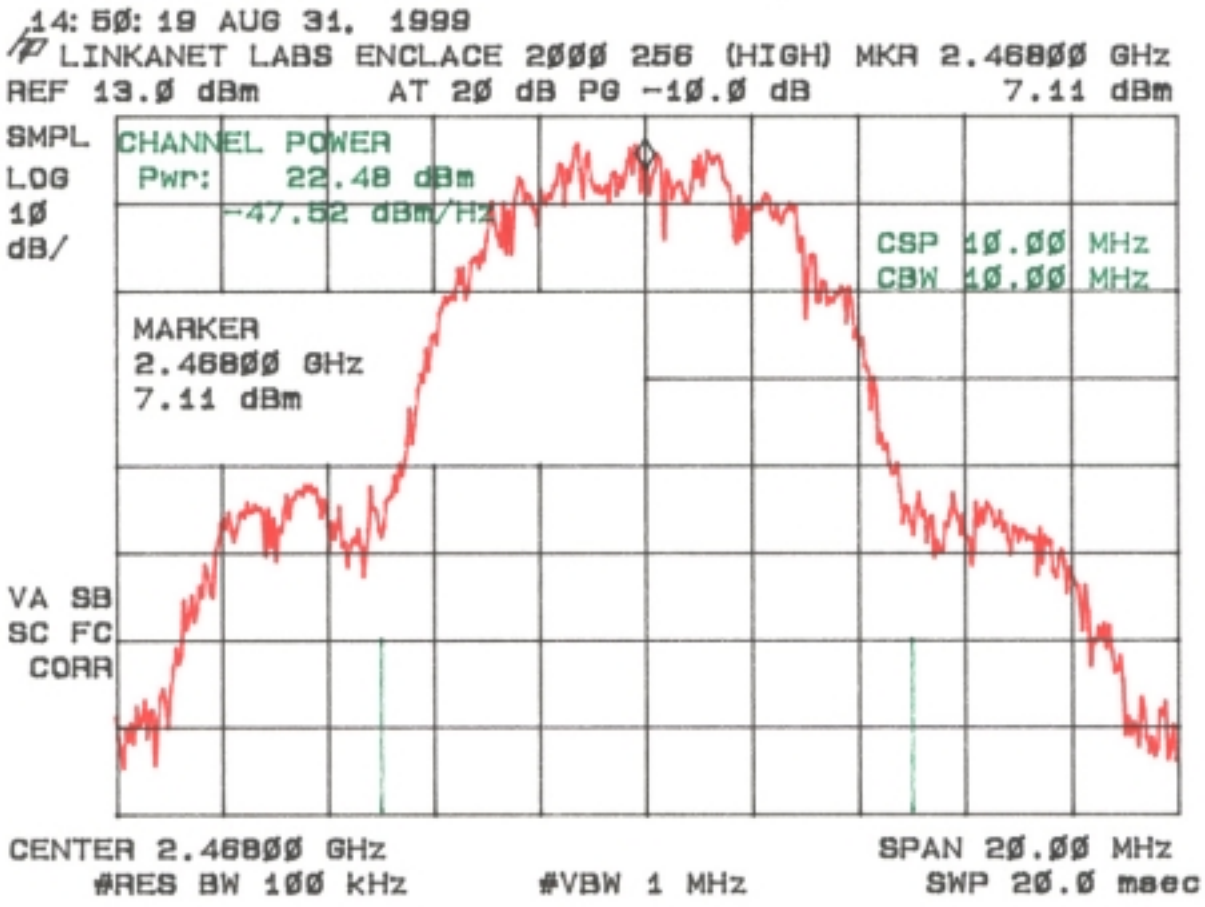

Figure 3j.
Peak Power per FCC Section 15.247(b) (Low), 384k Data Rate

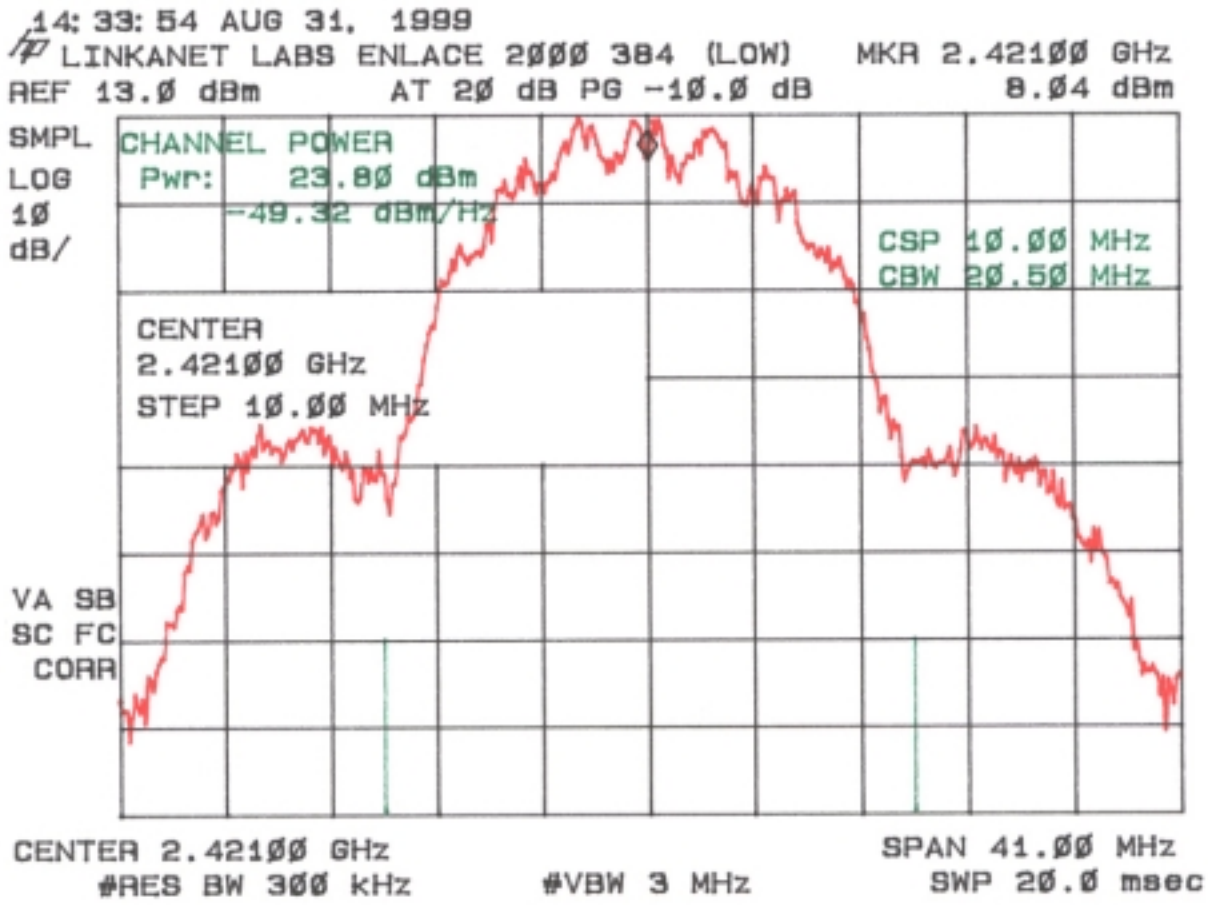

Figure 3k.
Peak Power per FCC Section 15.247(b) (Mid), 384k Data Rate

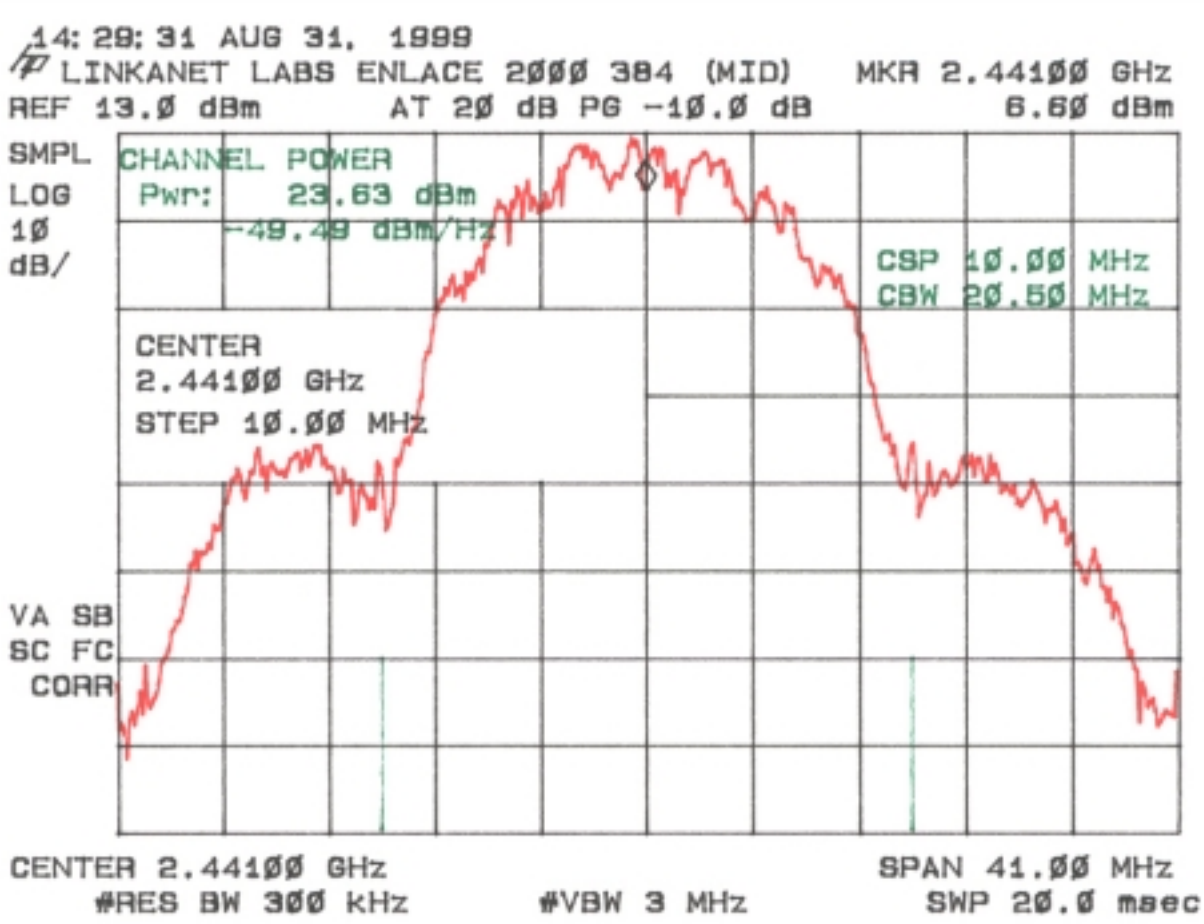

Figure 3l.
Peak Power per FCC Section 15.247(b) (High), 384k Data Rate

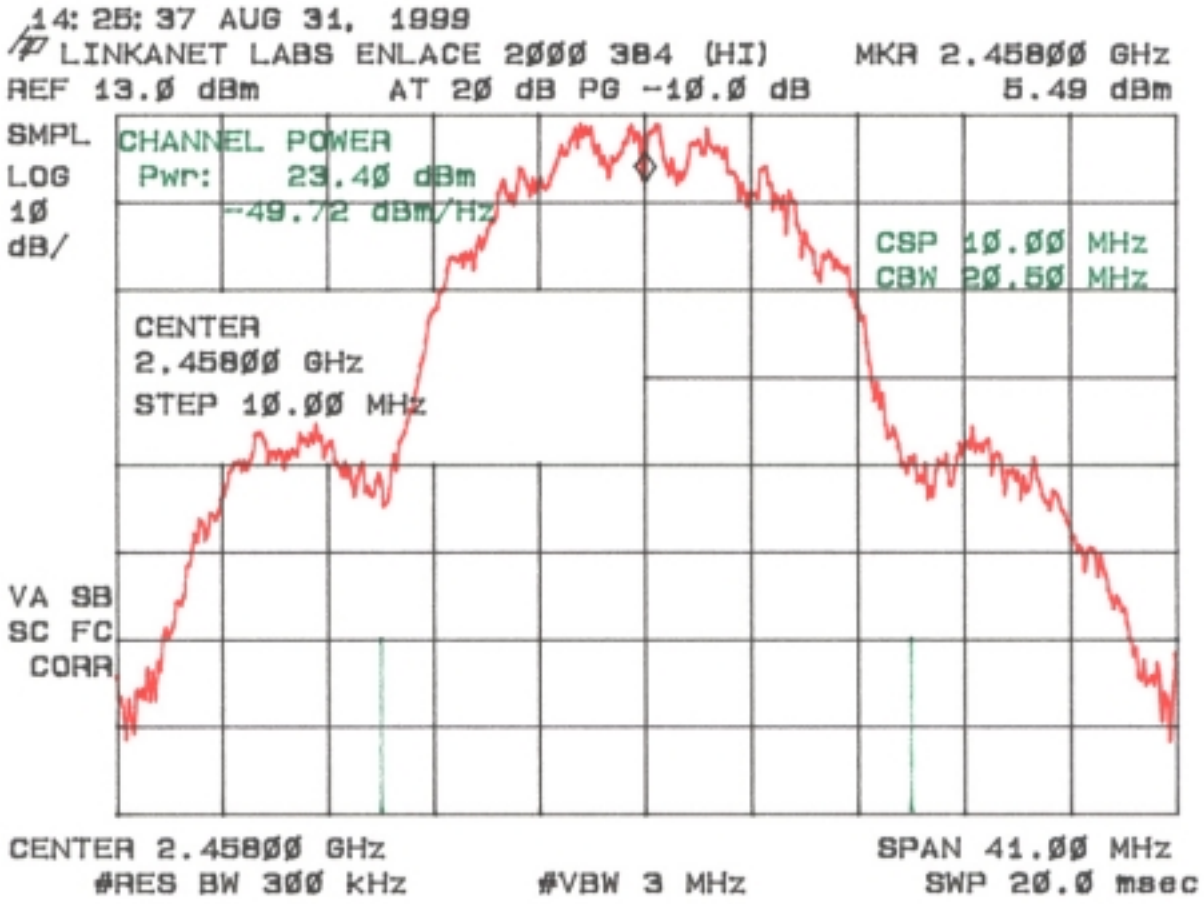

Figure 3m.
Peak Power per FCC Section 15.247(b) (Low), 512k Data Rate

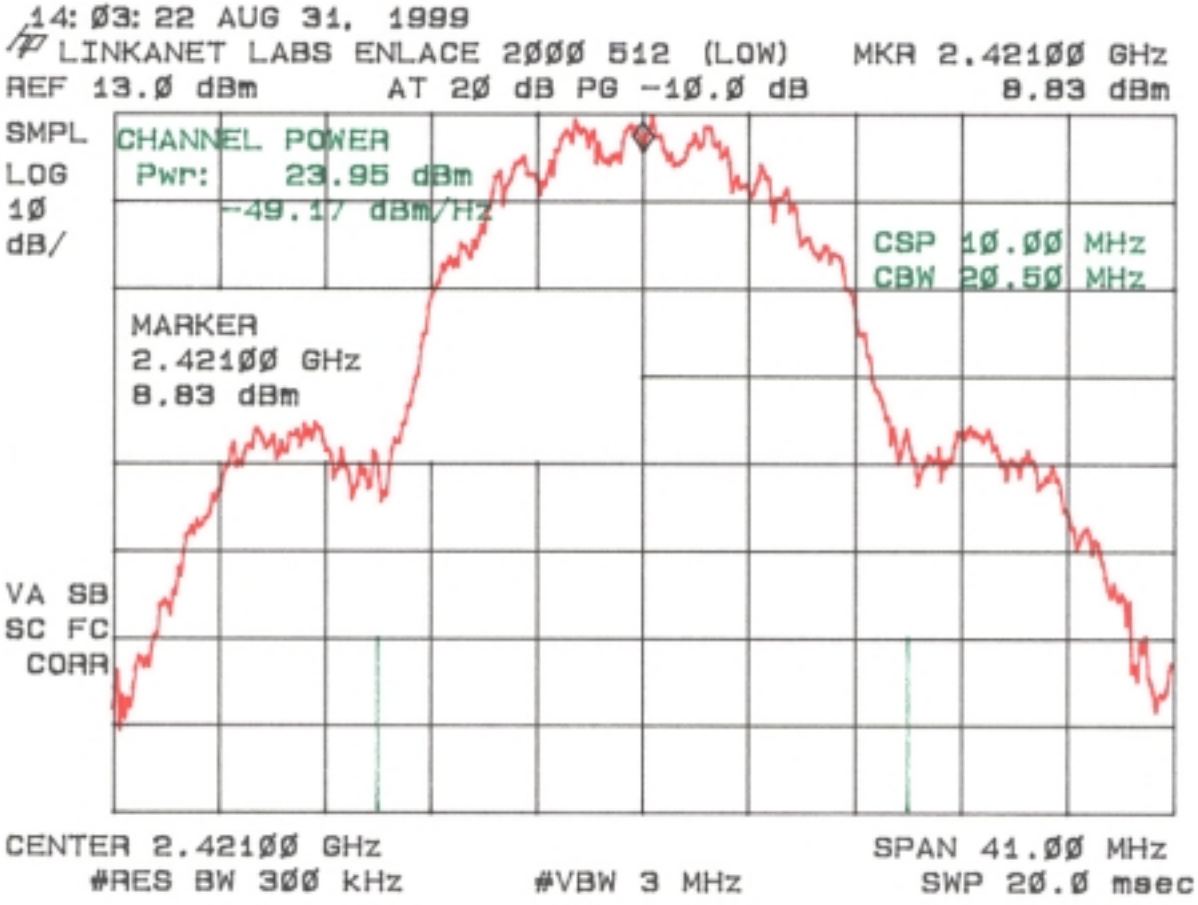

Figure 3n.
Peak Power per FCC Section 15.247(b) (Mid), 512k Data Rate

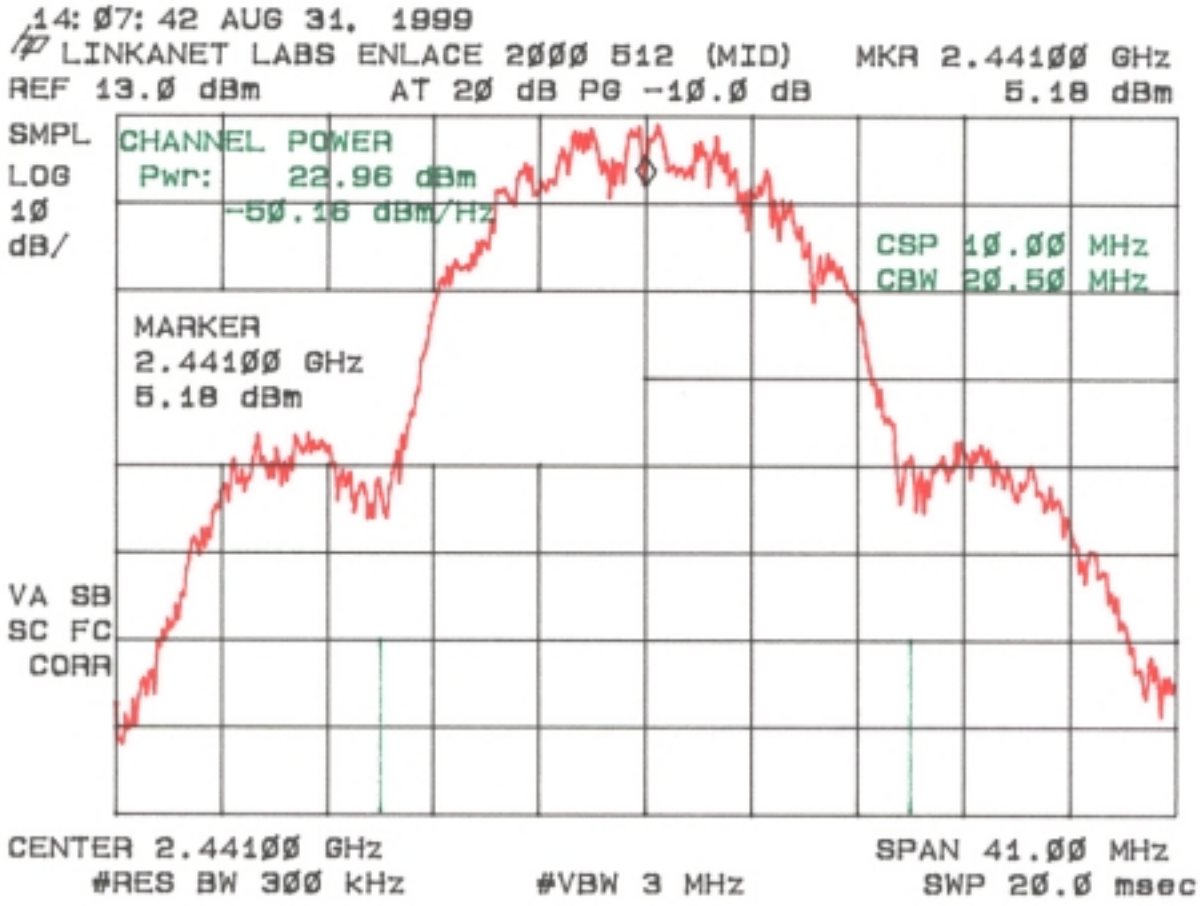

Figure 3o.
Peak Power per FCC Section 15.247(b) (High), 512k Data Rate