14.5 dBm in either direction which is similar to the T1.424/Trial-Use M2 mask and SHDSL transmit power. The example defined here is such that it should meet VDSL compatibility requirements for up to 5000 ft.

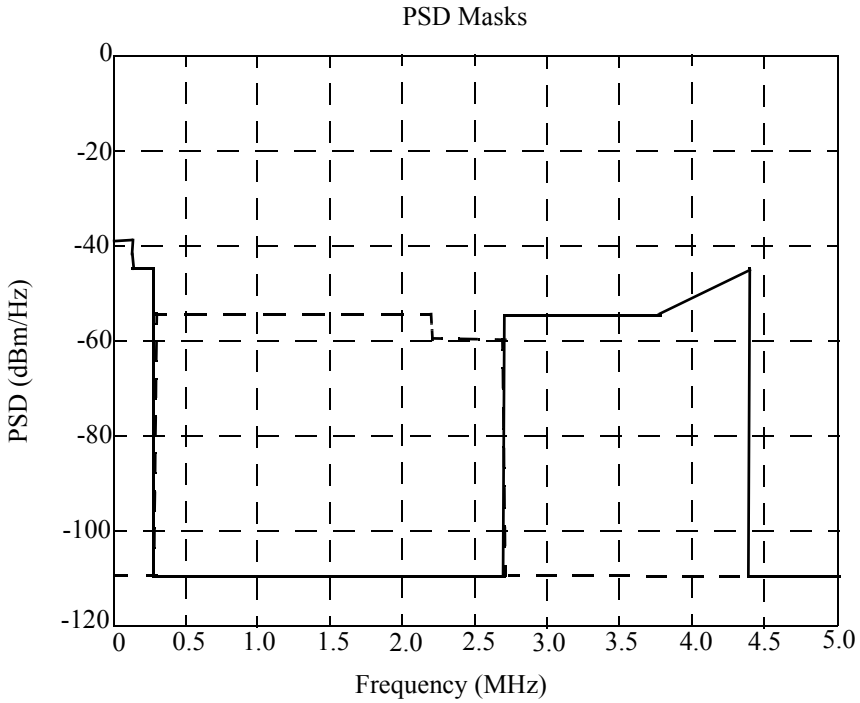


Figure 62C–1—Example PSD Masks for MCM 10PASS-TS

The example PSD was tested for spectral compatibility with existing VDSL systems using ITU-T Bandplan A (formerly known as plan 998). The spectral compatibility guideline was obtained by assuring that the new service will not disturb the guaranteed data rates for VDSL basis system as shown in Table 62C–1.

Table 62C–1—Required VDSL performance for spectral compatibility

Performance Level	Loop Length (kft.)	Upstream (Mb/s)	Downstream (Mb/s)
A	0.5	15.66	42.29
B	1.0	14.01	42.29
C	1.5	12.86	38.85
D	2.0	11.97	36.29
E	2.5	9.08	32.5
F	3.0	5.47	26.3
G	3.5	3.66	22.12
H	4.0	1.65	18.70
I	4.5	0.42	15.40
J	5.0	0.074	11.67

The results of the spectral compatibility analysis are shown in Figures 62C–1 through 62C–4.

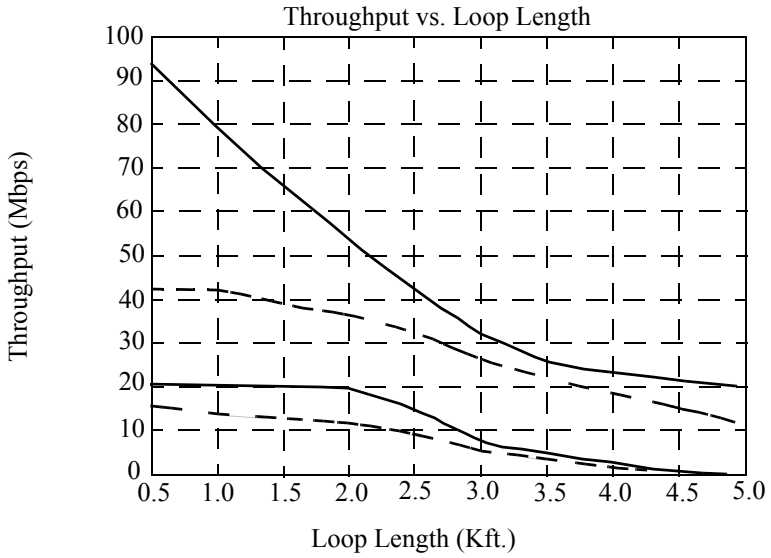


Figure 62C–2—Simulated performance[1] of a VDSL system (using ITU-T Bandplan A) in the presence of 24 disturbers using the example PSD of this subclause.

[1]Dashed line = minimum VDSL performancer required for spectral compatibility;
solid line = simulated VDSL performance in presence of new disturbers

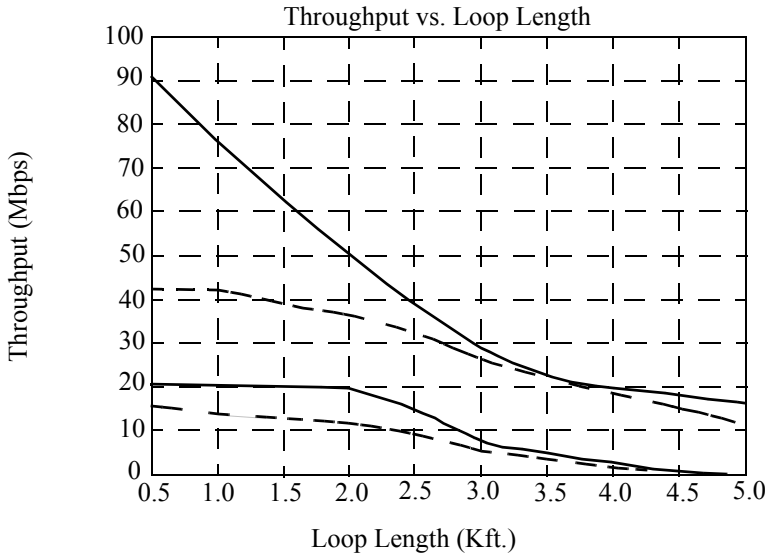


Figure 62C–3—Simulated performance[1] of a VDSL system (using ITU-T Bandplan A) in the presence of 12 disturbers using the example PSD of this subclause and 12 disturbers using T1.417 mask SM9.

[1]Dashed line = minimum VDSL performance required for spectral compatibility;
solid line = simulated VDSL performance in presence of listed disturbers

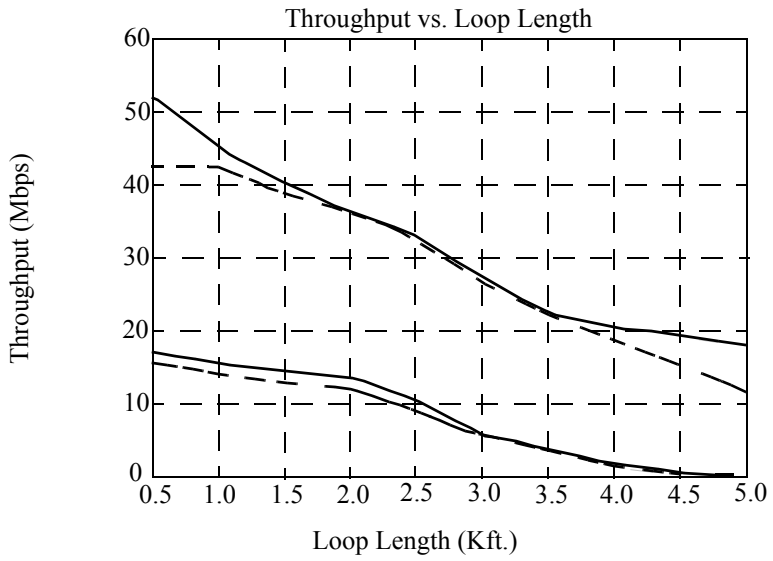


Figure 62C–4—Simulated performance[1] of a VDSL system (using ITU-T Bandplan A) in the presence of 12 disturbers using the example PSD of this subclause and 12 disturbers using T1.417 mask SM6.

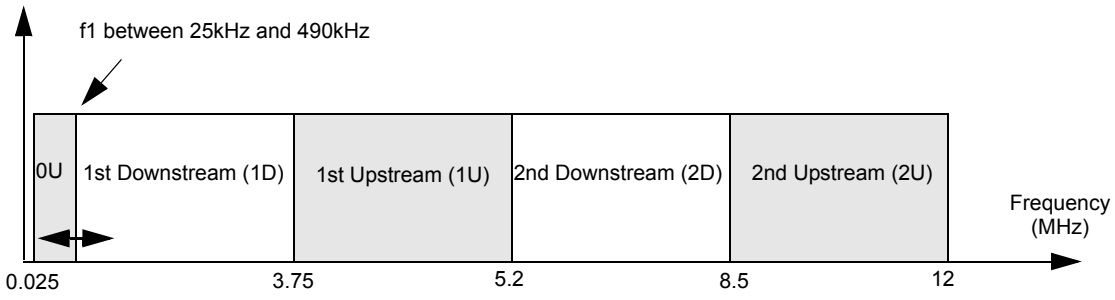
[1]Dashed line = minimum VDSL performance required for spectral compatibility;
solid line = simulated VDSL perfromance in presence of listed disturbers

62C.2.1 Plan A with variable LF region

As an additional example, this subclause describes a modified version of ITU-T Bandplan A (formerly known as 998) with variable low-frequency region. Its target is to improve the reach of symmetric bitrates using 10PASS-TS or VDSL.

Plan A with variable LF region is shown in Figure 62C–5. The transition frequency between band 0 (used in

Figure 62C–5—Plan A with variable LF region



upstream) and band 1D can be varied between 25 kHz and 490 kHz to boost the upstream channel bitrate. This principle is similar to the variable bandwidth capability of 2BASE-TL and SHDSL. A supporting PSD which observes spectral compatibility requirements is described in 62C.3.2.

This family of bandplans can be implemented by assigning the appropriate tones to upstream and downstream, as shown in Table 62C–2.