



## VDSL2 Bandpläne und Profile

- System
- WAN
- LAN
- NAT
- Firewall
- Route
- UPnP
- Vdsl2
  - ▶ ChannelConfig
  - ▶ LineConfig
  - ▶ ProfileConfig
  - ▶ BandsConfig
  - ▶ LoopBack
  - ▶
  - ActivateDeactivate
  - ▶ LineStatus

### Profile Config

Configuration of line for specific band plans.

Profile

Band Plan

Abbildung 6.1.3 Profilkonfiguration

### VDSL2-Bandplan und -Profile

Anders als die Vorgängertechnologie, welche die Wahl zwischen DMT (Discrete Multitone) oder QAM (Quadratur- Amplituden-Modulation) erlaubte, benutzt VDSL 2 zur Übertragung ausschließlich das DMT-Verfahren. DMT teilt das nutzbare Frequenzband in viele einzelne Frequenzbänder oder Töne. VDSL 2 nutzt bis zu 4.096 Töne, die in Abständen von 4,3125 kHz bis 8,625 kHz liegen. Jeder Ton kann entweder für den Up- oder Downstream verwendet werden, wobei der VDSL-2-Standard bereits die Up- und Downstreambänder sowie acht verschiedene Profile für unterschiedliche Anwendungsgebiete definiert hat.



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### Activate Deactivate

Activating or Deactivating the line

Line Activate ▾

HELP APPLY CANCEL

Abbildung 6.1.6 Aktivierung und Deaktivierung der Leitung

### Aktivierung / Deaktivierung der Leitung

Einstellung	Beschreibung
Line	Aktivierung oder Deaktivierung der Leitung. (Treffen Sie die Auswahl und klicken Sie anschließend auf APPLY).  <b>Ist nach jeder Änderung der Profilkonfiguration notwendig – erst deaktivieren-APPLY dann aktivieren-APPLY</b>

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### Channel Status

Status of the bearer .

Channel Number	Channel0 ▾	
	Upstream	Downstream
Actual Data Rate	0 kbps	0 kbps
Actual Interleave Delay	0.000000 ms	0.000000 ms
Total CRC Count	0	0
Total FEC Count	0	0
Actual INP	0.000000 Symbols	0.000000 Symbols

Abbildung 6.2.2 Anzeige des Kanalstatus: Datenrate, Verzögerung, Fehlerzähler und Impulsstörungsschutz (INP)



## VDSL2 Bandpläne und Profile

### Compatibility Table:

The following shows the band profile and band plan compatibility table:

Band Profile List		Band Plan List	
0	VDSL2 Profile8a	0	Annex A M1_EU32
1	VDSL2 Profile8b	1	Annex A M9_EU64
2	VDSL2 Profile8c	8	Annex B 997-M2x-A (B05)
3	VDSL2 Profile8d	9	Annex B 997-M2x-M (B06)
4	VDSL2 Profile12a	10	Annex B 997-M1c-A-7 (B07)
5	VDSL2 Profile12b	11	Annex B 998-M1x-B (B08)
6	VDSL2 Profile17a	13	Annex B 998-M2x-A (B10)
7	VDSL2 Profile30a	14	Annex B 998-M2x-M (B11)
8	VDSL2 Profile17b	16	Annex B 998-M2x-B (B12)
		18	Annex B 998-M2x-NDS0 (B13)
		20	Annex C
		21	Annex C_8K
		22	Annex B 997-M2x-NDS0
		23	Annex C 1M1
		24	Annex C_8K 1M1
		25	Annex B 998E17-M2x-A
		26	Annex B 998E17-M2x-NDS0

Band Profile \ Band Plan	0	1	8	9	10	11	13	14	16	18	20	21	22	23	24	25	26
0 (8a)	X	X	X	O	X	X	X	X	X	X	X	X	X	X	X	X	X
1 (8b)	X	X	O	O	X	X	X	X	X	X	X	X	X	X	X	X	X
2 (8c)	X	X	X	X	X	X	X	O	X	X	X	X	X	X	X	X	X
3 (8d)	X	X	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4 (12a)	X	O	X	X	X	O	X	O	O	X	X	X	X	X	X	X	X
5 (12b)	O	O	X	X	O	O	O	O	O	O	X	X	X	X	X	X	X
6 (17a)	O	X	X	X	O	O	O	O	O	X	O	X	X	O	X	X	X
7 (30a)	O	X	X	X	X	X	X	X	X	X	X	O	O	X	X	X	X
8 (17b)	X	X	X	X	X	X	X	O	O	X	X	X	X	X	X	X	X



## VDSL2 Bandpläne und Profile

### Test Result:

**Tip:** US: Up Stream / DS: Down Stream

#### Profile: 8A - Annex B-997-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	58.01	23.54
1000	33.69	3.81
1600	20.80	0.67
1700	20.02	0.64

#### Profile: 8B- Annex B-997-M2x-A

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	58.59	27.93
1000	37.01	8.11
1700	20.41	0.50

#### Profile: 8B- Annex B-997-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	56.25	21.19
1000	31.25	0.96
1600	19.92	0.66
1700	19.14	0.42

#### Profile: 8C- Annex B-998- M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.45	9.47
300	84.86	9.38
1000	46.78	7.13
1700	18.95	0.88

#### Profile: 8D- Annex B-997-M2x-A

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	58.01	23.54
1000	33.69	3.81
1600	20.80	0.67
1700	20.02	0.64



## VDSL2 Bandpläne und Profile

### Profile: 12A- Annex A M 9\_EU64

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.45	32.71
400	77.15	26.66
1200	31.05	3.71
1700	23.54	0.81

### Profile: 12A- Annex B-998\_M1x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	84.96	35.16
400	68.65	29.79
1200	33.50	1.46
1700	21.88	0.57

### Profile: 12A- Annex B 998-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.64	32.91
400	75.10	27.34
1200	33.50	3.03
1700	22.85	0.82

### Profile: 12A- Annex B 998-M2x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.55	33.01
400	75.20	26.37
1200	33.50	2.83
1700	23.44	0.59

### Profile: 12B- Annex A M1\_EU32

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.74	32.42
400	78.13	24.02
1200	31.64	3.42

### Profile: 12B- Annex B 997-M1c-A-7

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	84.77	35.45
400	69.73	27.83
1200	33.79	1.56



## VDSL2 Bandpläne und Profile

### Profile: 12B- Annex B 998-M2x-A

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.84	33.59
400	75.39	24.80
1200	33.79	2.54

### Profile: 12B- Annex A M9\_EU64

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.55	32.81
400	78.13	26.17
1200	30.08	3.52

### Profile: 12B- Annex B 998 M1x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	84.96	35.16
400	68.36	29.30
1200	33.50	1.46

### Profile: 12B- Annex B 998-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.55	33.30
400	75.29	26.86
1200	33.11	2.54

### Profile: 12B- Annex B 998-M2x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.64	33.30
300	81.45	33.20
400	74.71	24.41
1200	33.01	2.44

### Profile: 12B- Annex B 998-M2x-NDS0

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	85.84	33.59
300	81.54	31.25
400	74.71	24.41
1200	33.59	2.64
1400	30.37	0.49



## VDSL2 Bandpläne und Profile

### Profile: 17A- Annex A M1\_EU32

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.79
1000	48.54	5.08
1500	25.59	0.78

### Profile: 17A- Annex B 997-M1c-A-7

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	34.67
1000	45.41	4.30
1200	37.11	1.46

### Profile: 17A- Annex B 998-M1x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	34.77
1000	44.14	4.69
1200	36.13	1.56

### Profile: 17A- Annex B 998-M2x- A

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.89
1000	44.14	4.69
1200	32.91	2.83

### Profile: 17A- Annex B 998-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.98
1000	48.44	4.88
1200	34.67	0.59

### Profile: 17A- Annex B 998-M2x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.98
400	48.34	5.27
1200	34.67	2.73



## VDSL2 Bandpläne und Profile

### Profile: 17A- Annex C

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	36.82
1200	48.34	4.88
1300	29.30	3.91

### Profile: 17A- Annex C 1M1

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	36.91
1000	34.77	7.03
1200	25.10	4.00

### Profile: 17B- Annex B 998-M2x-M

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.98
1200	33.98	3.71
1500	23.05	0.85

### Profile: 17B- Annex B 998-M2x-B

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	33.89
1000	48.63	5.27
1200	36.13	1.56

### Profile: 30A- Annex A M1\_EU32

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	83.89
400	100	29.98
1000	46.88	2.83
1200	29.30	1.86

### Profile: 30A- Annex C\_8K

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	100
100	100	100
200	100	100
300	100	100





## VDSL2 Bandpläne und Profile

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Profile: 30A- Annex B 997-M2x-NDS0

Cable Length (meters)	DS [Mbps]	US [Mbps]
1.8	100	100
100	100	100
200	100	100
300	100	84.02
400	70.02	55.37
1000	35.06	4.49
1200	25.39	3.91
1400	20.61	1.37
1500	19.82	0.39