



Satellite bit-rate recommendation

The following table gives typically available bitrates for various satellite modulation and transponder allocated bandwidth. With this information it is then possible to estimate the available video bit-rate assuming two audio configurations:

- 2 MPEG-1 Layer II or AC3 channels, 384kbps each
- MPEG-1 Layer II or AC3 channel (384kbps) and 1 Dolby E channel (2.3Mbps)

Modulation ^{*1}	Allocated Bandwidth	Available Bitrate	Video bitrate	
			audio = 2x 384kbps	audio = 384kbps + 2.3Mbps (Dolby E)
DVB-S	6 MHz	7.2Mbps	5.7 Mbps	N/A
DVB-S	9 MHz	10.7Mbps	9.0 Mbps	7.2 Mbps
DVB-S	12 MHz	14.3Mbps	12.3 Mbps	10.5Mbps
DVB-S	18 MHz	21.5Mbps	19 Mbps	17.2 Mbps
DVB-S	24 MHz	28.6Mbps	25.6 Mbps	23.8 Mbps
DVB-S	27 MHz	32.2Mbps	28.9 Mbps	27.2 Mbps
DVB-S	36 MHz	42.9Mbps	38.9 Mbps	37.1 Mbps
DVB-S2	6 MHz	10.8Mbps	9.0 Mbps	7.2 Mbps
DVB-S2	9 MHz	16.1Mbps	14.0 Mbps	12.2 Mbps
DVB-S2	12 MHz	21.5Mbps	19.0 Mbps	17.2 Mbps
DVB-S2	18 MHz	32.3Mbps	29.0 Mbps	27.2 Mbps
DVB-S2	24 MHz	43.0Mbps	39.0 Mbps	37.2Mbps
DVB-S2	27 MHz	48.4Mbps	44.0 Mbps	42.2 Mbps
DVB-S2	36 MHz	64.5Mbps	59.0 Mbps	57.2 Mbps

Note ^{*1}: DVB-S : QPSK 7/8 ($\alpha = 0.35$), DVB-S2 : 8PSK 3/4 ($\alpha = 0.20$),

The following table presents our video compression recommendation according to three content types:

- News: the transmission cost is of a major importance.
- Sports: difficult contents where a tradeoff between video quality and transmission cost must be found
- Premium or Sports Premium: the video quality has to be as good as possible

Resolution ^{*1}	Contents	DVB-S	DVB-S2
SD	News	Bandwidth = 6MHz MPEG-4 @ 5.7Mbps 4:2:0 8-bit	Bandwidth = 6MHz MPEG-2 @ 9.0Mbps 4:2:2 8-bit
	Sport	Bandwidth = 6MHz MPEG-4 @ 5.7Mbps 4:2:0 8-bit	Bandwidth = 6MHz MPEG-2 @ 9.0Mbps 4:2:2 8-bit
	Premium	Bandwidth = 9MHz MPEG-4 @ 7.2Mbps 4:2:2 10-bit	Bandwidth = 6MHz MPEG-4 @ 9.0Mbps 4:2:2 10-bit



HD	News	Bandwidth = 18MHz MPEG-4 @ 17.2Mbps 4:2:0 8-bit	Bandwidth = 12MHz MPEG-4 @ 17.2Mbps 4:2:0 8-bit
	Sport	Bandwidth = 27MHz MPEG-4 @ 27.2Mbps 4:2:2 10-bit	Bandwidth = 18MHz MPEG-4 @ 27.2Mbps 4:2:2 10-bit
	Premium	Bandwidth = 36MHz MPEG-4 @ 37.1Mbps 4:2:2 10-bit	Bandwidth = 24MHz MPEG-4 @ 37.1Mbps 4:2:2 10-bit
1080p	News	Bandwidth = 27MHz MPEG-4 @ 27.2Mbps 4:2:0 8-bit	Bandwidth = 18MHz MPEG-4 @ 27.2Mbps 4:2:0 8-bit
	Sport	Bandwidth = 36MHz MPEG-4 @ 37.1Mbps 4:2:2 10-bit	Bandwidth = 24MHz MPEG-4 @ 37.1Mbps 4:2:2 10-bit
	Premium	N/A	Bandwidth = 36MHz MPEG-4 @ 57.2Mbps 4:2:2 10-bit

Note *1: SD= 576i25 or 480i30 standard resolution; HD= 720p50, 720p60, 1080i25 or 1080i30 High Definition; 1080p= 1080p50 or 1080p60 High Definition.