

EUROVISION

OPERATED BY EBU

EUROVISION MULTIPLEX PLATFORM ON ASIASAT 5 AT 100.5°E



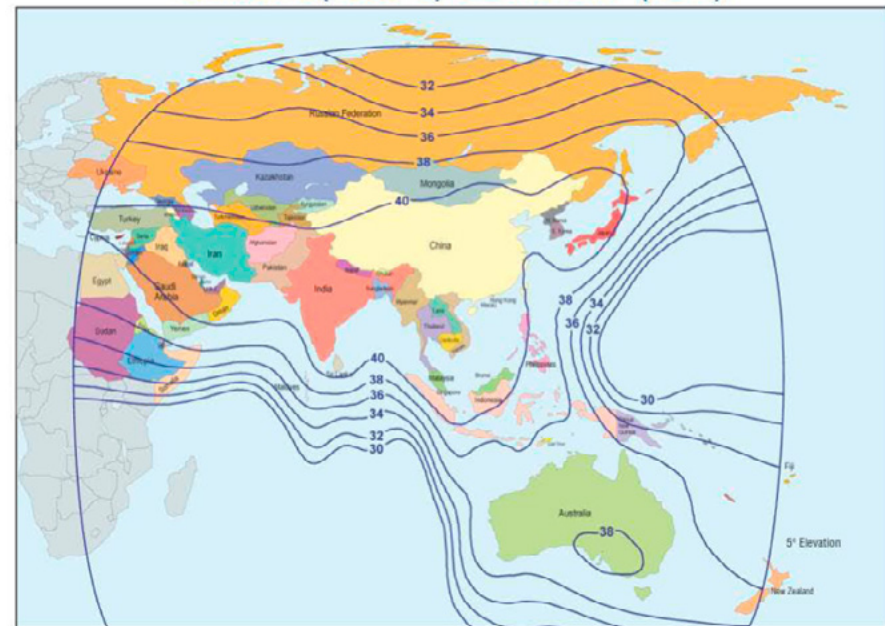
A number of high-profile sports events were broadcast to Asia in 2012 via EUROVISION-leased satellite space, such as the UEFA Champions League™, UEFA Europa League™ and Formula 1® races.

In order to improve the service to Asia, EUROVISION will implement the NS3 modulation scheme in the satellite component of its broadcast network. The carrier parameters are optimized to achieve higher spectrum efficiency and improved C/N margin at the reception side.

EUROVISION will establish a permanent multiplexer transmitted in NS3 mode to AsiaSat 5 transponder C11V from 19th August 2013.

Thereafter, all major sports events will be delivered to EUROVISION clients within the AsiaSat 5 footprint using this multiplexer and NS3 modulation scheme.

AsiaSat 5 (100.5°E) C-Band EIRP (dBW)



SATELLITE ASIASAT 5

ORBITAL POSITION	100.5 Deg E
POLARIZATION	linear
TRANSPONDER	C11V
UPLINK FREQ	6305.00 MHz (polarization H)
DOWNLINK FREQ	4080.00 MHz (polarization V)
TRANSPONDER BANDWIDTH	72MHz

MULTIPLEX PLATFORM

The total bit rate can accommodate several individually encrypted MPEG2/MPEG4 encoded streams. The mode used for given service will be communicated to each individual service separately.

The following encoding profiles are planned:

Video

- SD/HD
- MPEG-4 AVC/H.264 (4:2:0/4:2:2 8-bit)
- MPEG-2 (4:2:0/4:2:2)

Audio

- Mono, stereo, surround sound
- MPEG-1 Layer II
- Dolby E

NS3 MODULATION SCHEME

The transponder C11V will primarily be used to carry a full-time multiplex platform, allowing distribution of sport and news content to Asian broadcasters.

INFO BIT-RATE (188) [MB/S]	149.754
MODULATION	16APSK
FEC (LDPC)	17/30
PILOT	ON
FRAME	normal
ROLL-OFF FACTOR [%]	5
SYMBOL RATE [MS/S]	68.571429

The NS2000 demodulator needs to be configured accordingly. (See screenshot on the last page.)

SATELLITE RECEPTION

Reception antenna requirements

ANTENNA DIAMETER	3.0m	4.5m
GAIN RX	Better than 39.8 dBi	better than 42.8 dBi
VSWR RX	Better than 1.5:1	
OPERATING FREQUENCY	3.625 - 4.200 GHz	
POLARIZATION	Linear vertical	
ANTENNA NOISE TEMPERATURE (AT ELEVATION 30 DEG)	31 °K	
ISOLATION PORT-TO-PORT RX	Better than 65dB	
LNB	PLL type with L.O. stability better than +/- 25 kHz	

Equipment

In order to receive the signal from the satellite, broadcasters in Asia will need to install NS3 demodulators (NS2000) and MPEG4 /MPEG2 compatible decoders.

The receiving broadcasters are invited to contact the relevant manufacturers to purchase the right equipment directly.

However, EUROVISION will be able to give some assistance by making equipment available, subject to a contractual agreement between EUROVISION and the requesting broadcaster.

The transition to NS3 modulation will not be delayed, therefore it is very important for you to ensure that you have the compatible equipment.

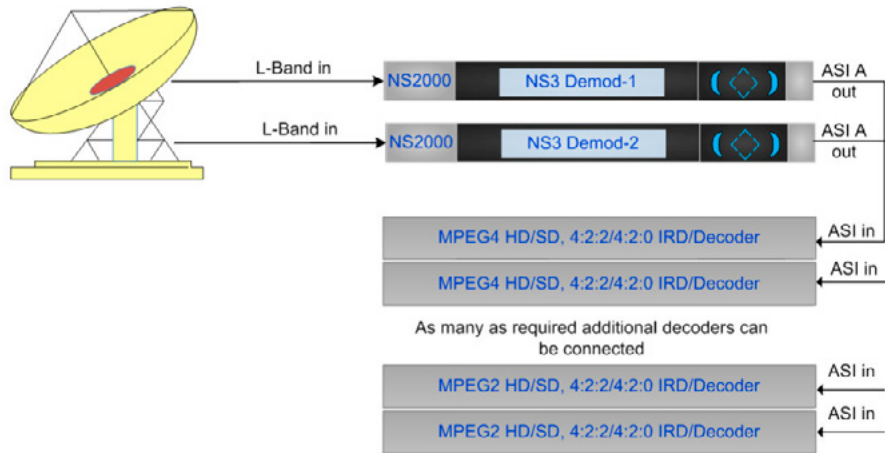
Should you wish to receive the demodulators from EUROVISION, please urgently contact the EUROVISION Network Department.

Contact

hypermux@eurovision.net

DRAWING

Typical installation at the reception side



SCREENSHOT

NS2000 demodulator settings

NS2000 Menu

- monitor
- system
- system config
- demodulator config

Line settings

Line Mode	NS3	
Dual Channel Mode	Single channel	
Symbol Rate	68.571429	MSPS
LNB LO Freq	5150.00000	MHz
RF Freq	4080.00000	MHz
Roll Off	0.05	
Golden Seq	0	
LNB Control	OFF	
Non-Linear Mode	OFF	
ACM Mode	Disable	
Auto CCM Mode	Disable	