

EUR(O)VISION

OPERATED BY EBU

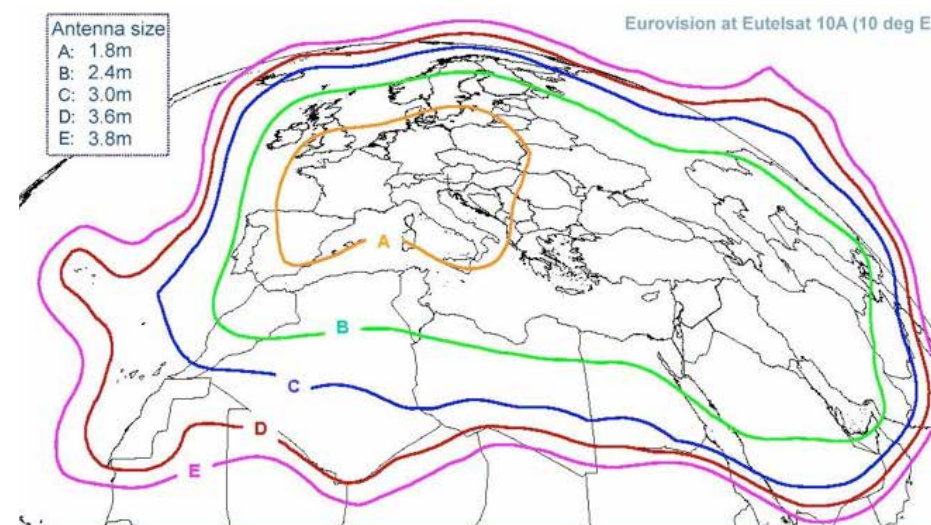
**EUROVISION MULTIPLEX
PLATFORM ON EUTELSAT
10A AT 10°E**



In order to improve the distribution service to European broadcasters, EUROVISION will aim to implement the NS3 modulation scheme on one of its European satellite transponders. The carrier parameters will be optimized to achieve greater spectrum efficiency and improved C/N margins at reception points across the satellite's European footprint.

EUROVISION will establish a permanent Multiplexer transmitted in NS3 mode on the Eutelsat 10A transponder B4 on 17 March 2014.

Many major sporting events and various other transmissions will be delivered to EUROVISION clients within the Eutelsat 10A footprint on the new platform following the implementation of the multiplex.



SATELLITE EU10A

ORBITAL POSITION	10 deg E
POLARIZATION	linear
TRANSPONDER	B4
UPLINK FREQ	14375.00 MHz (polarization H)
DOWNLINK FREQ	11075.00 MHz (polarization V)
TRANSPONDER BANDWIDTH	72MHz

MULTIPLEX PLATFORM

The total bit rate allows for the accommodation of many MPEG4 encoded streams each with the possibility to be individually encrypted. The specific mode to be used for each individual service will be communicated separately.

The following encoding profiles are planned:

Video

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

Audio

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

NS3 MODULATION SCHEME

The transponder B4 will primarily be used to carry a fulltime multiplex platform permitting the distribution of sport and news content to European broadcasters.

INFO BIT-RATE (188) [MB/S]	198.6048
MODULATION	16APSK
FEC (LDPC)	3/4
PILOT	ON
FRAME	normal
ROLL-OFF FACTOR [%]	5
SYMBOL RATE [MS/S]	68.571429

The NS2000 demodulators will need to be configured accordingly. Please see the screenshot on the last page of this document for further details.

SATELLITE RECEPTION

ANTENNA DIAMETER	1.8m	2.4m	3.0m	3.6m
ANTENNA G/T RX	22.8 dB/K	25.1 dB/K	26.8 dB/K	28.3 dB/K
VSWR RX	Better than 1.3:1			
OPERATING FREQUENCY	10.95 - 11.70 GHz			
POLARIZATION	Linear vertical			
LNB	PLL type with L.O. stability better than +/- 250 kHz			

Equipment

To receive the signal from the satellite, each receiving broadcaster will need to install NS3 demodulators (NS2000) and MPEG4 compatible decoders.

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

EUROVISION will also be able to give assistance to broadcasters by making the necessary equipment available. This will be subject to a deposit contractual agreement between the EUROVISION Network and the requesting broadcaster.

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

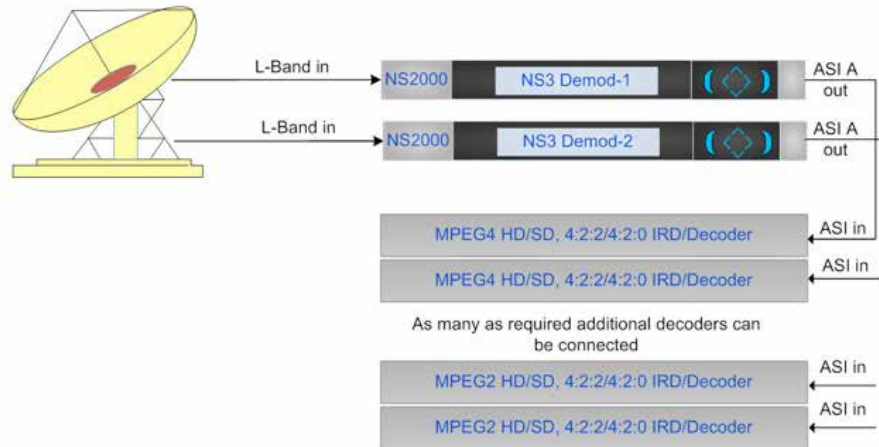
Should you wish to receive the required demodulators directly from EUROVISION, please contact the EUROVISION Network Department.

Contact

hypermux@eurovision.net

DIAGRAM

Typical installation at the reception side



SCREENSHOT

NS2000 demodulator settings

Line settings

Line Mode	NS3	
Dual Channel Mode	Single channel	
Symbol Rate	68.571429	MSPS
LNB LO Freq	9750.00000	MHz
RF Freq	11075.00000	MHz
Roll Off	0.05	
Golden Seq	0	
LNB Control	13V/0KHz	
Non-Linear Mode	OFF	
ACM Mode	Disable	
Auto CCM Mode	Disable	