



TELEFÓNICA OB'S UPGRADED WITH BROAMAN REPEAT48 WDM-12

Spanish broadband and telecommunication giants Telefonica, S.A have become the latest broadcast multinational to invest in BroaMan's unique and scalable signal conversion technology over fiber.

The company's subsidiary, Telefonica Broadcast Service, provides services for other companies (as well as themselves), handling production, transport and management of all TV content. Their department also handles outside production of TV events, in particular sports and other news related programs, for which they operate a fleet of OB vans. These include a 16-cam truck with six EVS, and two 15-camera trucks with four EVS each. Their flagship HD van handles Spanish UEFA Champions League.

Technical manager of the production department is Carlos Rojo, and it was he who authorised the investment after seeing BroaMan's product portfolio at IBC 2017 in Amsterdam.

"We were looking for an inexpensive, easy and reliable way to transport multi SDI 1.5G video through just two optical fibers when we came across BroaMan," he said. "We were looking to add facilities to our trucks in order to speed up the time preparing our productions. We used to have six hours in which to go live with basketball and handball, and we have to ensure a complete absence of errors."

**ECONOMICAL
AND RELIABLE
SINGLE-FIBRE
CWDM SOLUTION**

Pioneers and experts in fiber Infrastructure. BroaMan have been creating and shaping highest quality fiber networks and point to point solutions for more than 25 years.

The beauty of BroaMan's solutions, Carlos said, is that they only pay for what they need. "The price and flexibility to be able to configure the system the way we needed was a huge benefit. It means we don't have any features that we won't use."

Before committing to the purchase they took a demo system of the Repeat48 WDM-12 for evaluation — and to ensure it fulfilled the requirement. "We were concerned about CWDM technology over our field fibers and the possibility of video jitter," admits Rojo. "On many occasions we connected very long BNC cables to the device and it passed all our tests without problem."



The Repeat48 WDM-12 would have been perfect for their needs. The series represents an application engineered, electrical-optical-electrical media conversion for 3G/HD/SD-SDI or AES10/MADI signals. It converts video or digital audio between coaxial and optical connections. This particular device features 12 video channels combined over built-in CWDM module — with all channels transported to another location with single duplex fiber. It also connects to a Route66 device to offer additional I/O in remote locations. And since BroaMan products comply with SMPTE standards, they can be used with third party equipment.



As a consequence, Telefonica ordered three identical sets — each running point-to-point — based on BroaMan's Repeat48WDM 12-channel device. The Repeat48 at one end is equipped with 8-In, 4-Out, and on the other end 4-In, 8-Out — and each device pair is connected via just one duplex single-mode cable. "This is now used to broadcast ACB Spanish National Basketball League," confirms Carlos Rojo. "It was for this that we needed the solution."



In operation, three Minicam, two fill, key graphic signals and a clock cam are sent to the OB truck and in the other direction two program returns and a clock signal from the field. "Sometimes we will need to use existing fixed installations, because some stadiums are pre-cabled, and as we don't have many fibers available, we will use the Repeat48 fiber tunnel to send an audio Dante channel."

In other words, via two fibers they can send the 12 video channels and 64 audio channels in a very elegant and simple way. "Previously we would have been unable to send so many signals with just two fibers," notes the Telefonica man. "This also enables us to save time and problems with connections."

The new BroaMan upgrade will provide Telefonica with enormous flexibility. In addition to the ACB Spanish National Basketball League they can also broadcast Handball Spanish National League; Football Spanish National League; Football UEFA Champions League; Basketball Euroleague and Bullfighting.

Summing up, Carlos Rojo says, "The great advantage [with the Repeat48] is that the ability to send so many signals through a single fiber means not only that we have many more spare fibers, but we also reduce the set-up by more than half the time. In certain situations we just have one or two fibers available but we can send everything we need."

"It is also important and reassuring to know that this always works, and the reliability of the system means we can focus our attention on other areas. There is no doubt that CWDM technology offers us an extremely reliable way of sending so much info and data."

"The investment is certainly not high when you compare it with other technologies, and the advantages that it offers more than warrants the investment."

Finally, he says, while the device was easy to set up and use, they valued the support and advice provided by Maciek Janiszewski, BroaMan's Applications Engineering Manager.