

# China National Radio High power FM combiner solutions for 13 Chinese cities

China National Radio (CNR), founded in 1940, is the only state owned radio network covering the whole of China. It has eight channels and broadcasts a total of 156 hours per day. A recent marketing survey shows that 15.4 per cent of the population listens to the radio while driving or taking taxis. This translates to 80 million listeners each month.

### Challenge

2003 has been designated "China Radio Development Year" by the State Administration of Radio, Film and Television of China (SARFT), which oversees CNR's operations. This initiative is part of the preparations for the 2008 Beijing Olympics. One of CNR's aims has been to increase the quality and range of radio programmes available in Chinese cities. By the end of 2003, it aims to cover all the provincial capitals with 3 FM-channels, expanding to other major cities during 2004. CNR also needed a partner which produced robust and technically innovative products to assist in this project.

"There are many challenges for radio broadcasters in China" says Jonas Brandt, Terecom Component's area sales manager. "The sheer size of the country - 1.3 billion inhabitants - and political complexities of the infrastructure in each region make it a difficult task".

For the first time however Exir Broadcasting & Telecom was asked to tender for supply of FM combiners in 13 Chinese cities. "This was no small task" says Jonas Brandt, "historically CNR has been supplied entirely by local manufacturers and there was a great deal of work involved to ensure that the Chinese authorities were satisfied".

### Solution

At the conclusion of this process however, CNR ordered 25 FM constant impedance combiners for the 13 centres. Some of these were customised to meet CNR's requirements.

The Guangzhou station was a case in point. Exir Broadcasting & Telecom devised a novel solution to the problem of limited space - without the need for renovations - by setting 10KW low loss combiners on top of each other, instead of in the conventional chain formation. The new system consists of 5 FM channels with a total output of 50KW, in an area of approximately 2.5m x 1.2m; a very compact solution.

All combiners were tuned and tested by Terecom's engineers in Sweden and then shipped to China. Terecom has teamed up with a local antenna manufacturer who are carrying out installation currently.

'Our reputable quality, a competitive price and a local installation and service organisation made for a winning concept' says Jonas Brandt. ■

