

SPINNER 5G Broadcast



New Ways to Distribute Content –
Achieve Wider Coverage and Lower Costs

HIGH FREQUENCY PERFORMANCE WORLDWIDE
www.spinner-group.com



Why 5G Broadcast?

In mobile networks there is a clear trend toward enormous data volumes. This has been driven by a significant increase in mobile phone use, data consumption, and interconnectivity over the last decade.

With an High Power High Tower overlay network,
5G Broadcast **reduces mobile network loads.**

5G Broadcast vastly increases the speed of cellular networks while improving bandwidth, latency, and spectrum availability for better and wider coverage. It will greatly benefit mobile devices, automotive applications, and the IoT.



FeMBMS: the Standard Behind 5G Broadcast

Release 14 of the 3GPP mobile broadband standard defined an LTE-based approach known as 5G Broadcast or FeMBMS (= further enhanced/evolved multimedia broadcast multicast service). It involves supplementing a cellular network with an overlaid high-power/high-tower (HPHT) network. Noteworthy is the fact that, for the first time, it lets 100% of transmission capacity be devoted to broadcasting services.

What's so special about FeMBMS?

- 100% downlink signal
- Supports SFN networks

5G Broadcast Trials

FeMBMS is being used in 5G Broadcast trials worldwide to shed light on the potential of broadcasting solutions based on the new 5G technology.

For example, in 2018 and 2019 the 5G TODAY test field was successfully operated in Bavaria with two SFN stations incorporating SPINNER products.

In the UK, the BBC installed a 5G network on a remote island to test live streaming. Other trials followed, e.g. at the Rock Rio Festival in Brazil and in Beijing, China.



SPINNER 5G Broadcast mask filters, e.g. installed in Barcelona 2020 and 2022, among other places

By working with SPINNER to create your 5G Broadcast solution, you benefit from our extensive experience in both broadcast and mobile communications.

Whether you start with only a vague idea, a well-developed plan, or a detailed block diagram, you're in good hands with us. We've been developing and implementing complex systems to link transmitters and antennas for more than 50 years.

High Power High Tower: What Could 5G Broadcast Systems Look Like?

Key for a successful 5G Broadcast installation is a viable plan, geared to the existing equipment in your TV tower. SPINNER will gladly support you.

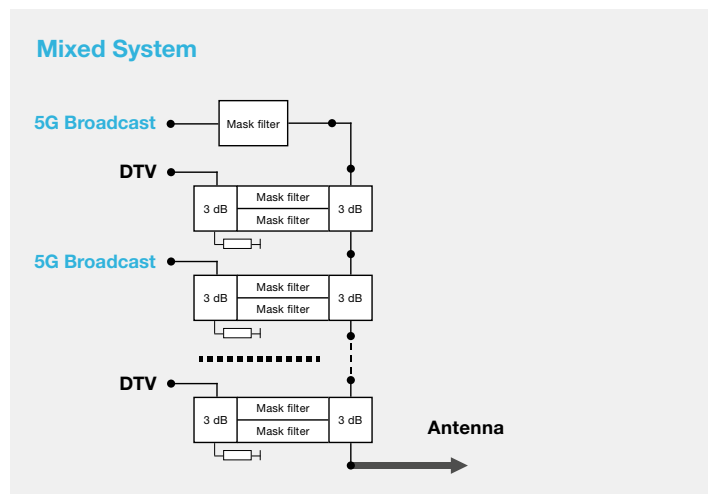
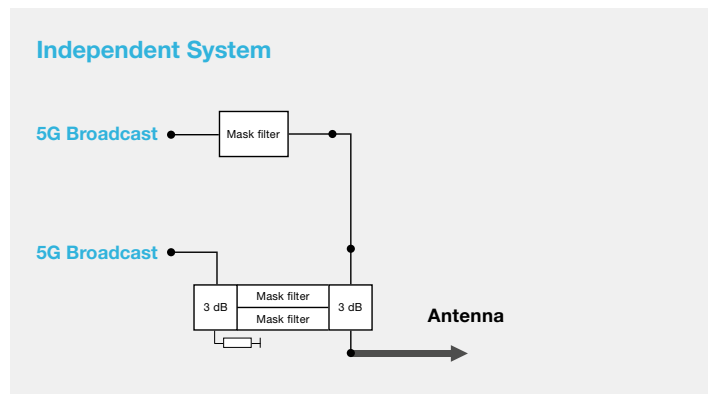
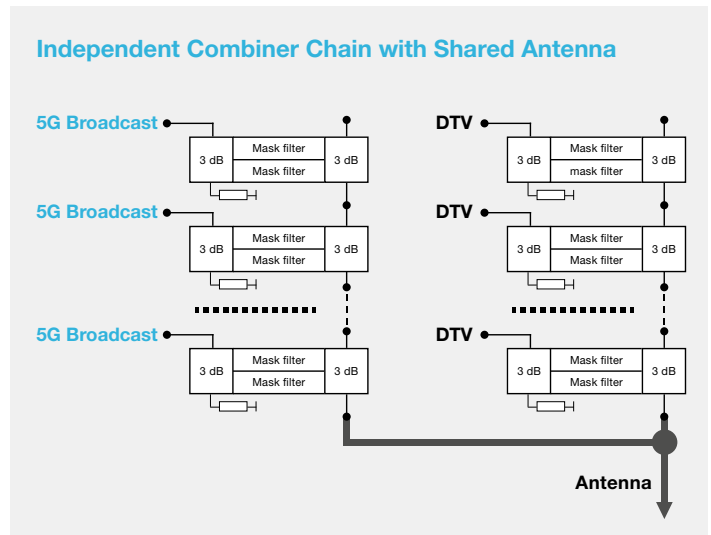
Broadcasting stations equipped with SPINNER systems are particularly easy to upgrade to 5G Broadcast.

Since we're familiar with the technical data and mechanical dimensions of the installed equipment, we can quickly and easily draw up a concept.

The graphics on the right show three exemplary ways to integrate 5G Broadcast into a HPHT, depending on the on-site situation.



Typical SPINNER combining system with patch panels



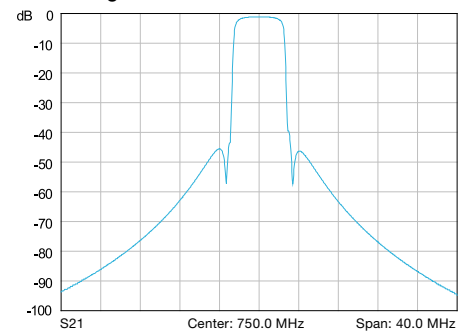
Filters and Combiners for 5G Broadcast



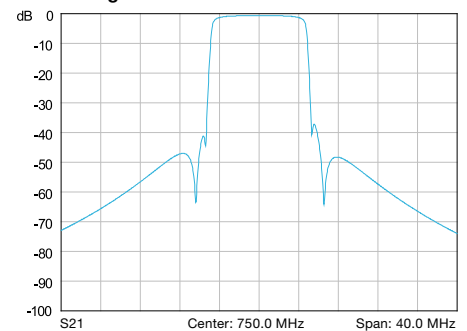
Plug & Play
Our 5G Broadcast
combiners can be
easily substituted
for obsolete DTV
units.



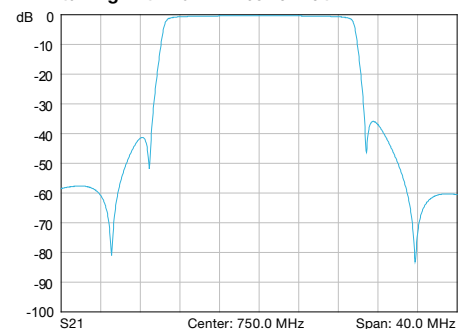
**Exemplary 5G Broadcast mask filter
tuning with 5 MHz bandwidth**



**Exemplary 5G Broadcast mask filter
tuning with 10 MHz bandwidth**



**Exemplary 5G Broadcast mask filter
tuning with 20 MHz bandwidth**



- Compatible with our filters and combiners for terrestrial TV standards
- Suitable for FeMBMS as defined in 3GPP Rel. 14 and following versions
- Power: 10W to 20kW
- Bandwidths: 5, 6, 7, 8, 10, 15 and 20 MHz
- 6 and 8 cavities
- Air-, fan- or liquid cooled
- Tunable within the UHF frequency range
- Temperature compensated

SPINNER: Your Partner for 5G Broadcast

Patch Panels



Rigid Line Components



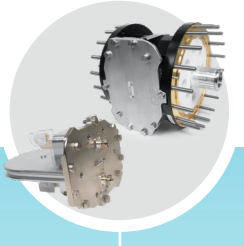
Switches



Antenna Monitoring System



Direct Access Units



Mask Filters



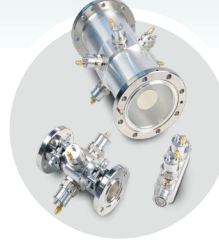
Combiners



Loads



Monitoring Couplers



Cable Connectors



Solutions and Services

In addition to our in-house technical service, our experienced technicians support clients almost everywhere in the world, including remote and hard-to-access locations.

Our services include:

- Planning, engineering and project management
- Tuning/retuning, installation, and commissioning
- Aftersales service



Contact Us

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Visit Us for More Information

www.spinner-group.com/5GBroadcast





HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

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