
FCC Approves Digital Power Increase for Most FM IBOC Stations

by Scott R. Flick and Christine A. Reilly

The FCC has released an Order amending its digital audio broadcasting (“DAB”) rules for FM stations operating digital facilities. According to the Order, the underlying purpose for the change is to “improve FM digital coverage and to eliminate regulatory impediments to FM radio’s ability to meet its full potential and deliver its promised benefits.”

The Order authorized **most** FM stations using an in-band on-channel (“IBOC”) DAB system to increase their digital effective radiated power (“ERP”) by 6 dB without prior FCC approval. The FCC concluded that, due to potential interference issues, super-power FM stations (those having authorized ERPs above the maximum level for their station class) are subject to different digital ERP limitations and **may not** increase their digital ERP without FCC approval. Under the new rules, the maximum digital ERP for super-power FM stations will be the higher of the “currently permitted -20 dBc level or 10 dB below the maximum analog power that would be authorized for the class of the super-powered FM station adjusted for the station’s antenna height above average terrain.”

The Order also established an application process for stations wishing to increase digital power further than 6 dB, to as high as a 10 dB increase, and instituted interference complaint procedures to address issues of unforeseen interference.

Background

The IBOC DAB system, developed by the iBiquity Digital Corporation, allows FM stations to transmit analog and digital signals simultaneously. IBOC operations were initially approved by the FCC in 2002. Over the last eight years, 1500 stations have chosen to commence digital operations. With few exceptions, FM digital broadcasters are subject to digital power level limitations of one percent of authorized analog power.

Since 2006, several broadcasters have sought and received authority to temporarily operate at levels exceeding the one percent ERP limitation. In 2008, a group of broadcasters and equipment manufacturers sought a blanket increase in the digital ERP power limitations to 10% of analog ERP. The requested increase was supported by studies prepared by iBiquity and National Public Radio, both of which stated

that the one percent ERP limitation resulted in insufficient and inconsistent digital replication of analog signal coverage. Based on industry demand, the supporting studies, and an absence of interference complaints, the FCC agreed to a permit stations to increase the power level of their IBOC digital signals.

New Rules

Other than super-power FM stations, broadcasters opting to increase their digital ERP must file an informal notice using the FCC's online CDBS system within 10 days of commencing operation at the 6 dB higher level. Super-power stations and stations seeking an ERP increase above 6 dB will be required to file an informal application to obtain the necessary authorization. In their application, non-super-station applicants must "calculate the station's analog F(50, 10) field strength at all points on the protected 60 dBu F(50, 50) contour of a potentially affected first-adjacent channel analog FM station." The FCC's Order includes an in-depth discussion of permissible ERP levels under the new rule. The Order also notes that the FCC has established an online digital ERP calculator for super-power FM stations. The calculator may be accessed at www.fcc.gov/mb/audio/digitalFMpower.html.

The Order also establishes formal procedures for the submission and prosecution of interference complaints. During the proposal phase of this proceeding, several commenters sought interference protection for low power FM ("LPFM") and FM translator stations. The FCC stated that "analog LPFM and FM translator stations are secondary services, and as such, are not currently entitled to protection from existing full-service analog FM stations." With regard to interference to full-power stations, the FCC declined to propose any new predicted interference methodologies, stating that they would be unnecessary in light of the FCC's digital power limits and interference dispute procedures adopted in the Order.

In the event of interference, the affected full-power FM station must contact the licensee of the digital FM station first. Those licensees are then tasked with confirming and resolving the interference claim, using voluntary tiered FM Digital ERP reductions if necessary. If a reduction in ERP resolves the interference, the digital FM station must then notify the FCC of its reduced digital ERP.

If the licensees are unable to resolve the interference claim, the affected station may file an interference complaint with the Media Bureau. The complaint must include a minimum of six reports of ongoing objectionable interference. It must also include maps identifying the location of the interference reports and a statement detailing the nature and extent of interference occurring at each location. Upon receipt of a "complete and sufficient" complaint, the FCC is providing itself with a 90 day window in which to review and act upon the complaint. If the FCC fails to act within those three months, the FM digital station "must immediately reduce FM Digital ERP to -14 dBc." The Media Bureau may order subsequent 3 dB reductions in FM digital ERP, and if interference complaints persist after these reductions, the Bureau "will order the station to reduce FM Digital ERP to the currently permitted maximum of -20 dBc and require it to remain at that level until the Bureau acts on the pending FM digital interference complaint."

Stations that otherwise qualify may increase their digital ERP by 6 dB immediately after the FCC's Order becomes effective. The effective date of the Order will be the later of thirty days after publication in the Federal Register, or upon announcement in the Federal Register that the new requirements have been approved by the Office of Management and Budget. Stations wishing to commence operation at increased digital power before the effective date of the FCC's Order can file a request for special temporary authority to do so.

If you have any questions about the content of this advisory or having a voice on this issue, please contact the Pillsbury attorney with whom you regularly work, or the authors of this advisory

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