

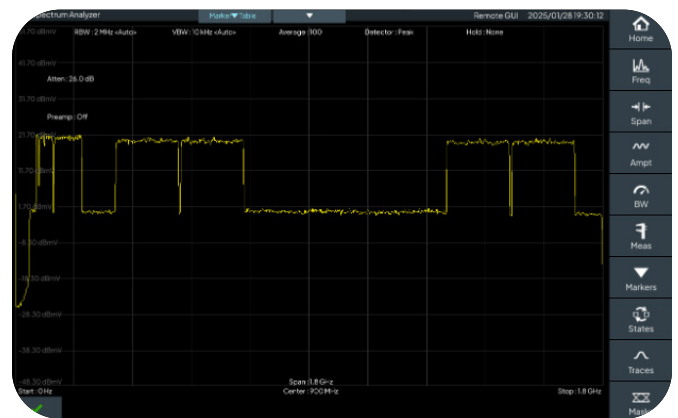
# CLGD-K1051 Fullband AWGN License

In order to provide new testing capabilities for wideband receivers, such as those required for DOCSIS 4.0, the CLGD has enhanced its AWGN noise generation capability.

The CLGD-K1051 Fullband AWGN software license adds AWGN to the full downstream transmission spectrum. The existing wideband AWGN impairment of the CLGD supports up to 200 MHz that can be free-running or locked to a channel. The new Fullband AWGN license extends the CLGD AWGN generation capability on the downstream to cover the full DOCSIS 4.0 spectrum up to 1.8 GHz.

With the CLGD-K1051 Fullband AWGN software license, the CLGD continues to support the AM hum, narrowband interferer, micro-reflections, and phase noise impairments. The Fullband AWGN functionality is available in Mixed and

DOCSIS 3.1 transmission modes, where the maximum number of SC-QAM and OFDM carriers remain unchanged and ARB payout has been disabled.



## CLGD-K1051 Fullband AWGN specifications

CLGD transmission mode	Mode function with Fullband AWGN enabled <sup>1</sup>
Mixed mode	Bandwidth <ul style="list-style-type: none"> <li>1.5 MHz to 1,171 MHz</li> <li>1.5 MHz to 1,747 MHz (with CLGD-K3018 option)</li> </ul>
	Noise Level <ul style="list-style-type: none"> <li>0 dBmV to 51 dBmV</li> </ul>
	Max. 4 x 192 MHz OFDM carriers <ul style="list-style-type: none"> <li>Max. 2 (reduced from 3) x OFDM within 252 MHz to 1,218 MHz</li> <li>Max. 3 x OFDM within 1,218 MHz to 1,794 MHz</li> </ul>
	Max. 160 x 6 MHz (J83B) or 120 x 8 MHz (DVB-C) SC-QAM carriers <ul style="list-style-type: none"> <li>Within 47 MHz to 1,218 MHz</li> </ul>
	RF impairments <ul style="list-style-type: none"> <li>AM hum</li> <li>Micro-reflections</li> <li>Narrowband interferer</li> <li>Phase noise</li> </ul>
	ARB playout disabled
DOCSIS 3.1 mode	Bandwidth <ul style="list-style-type: none"> <li>1.5 MHz to 1,171 MHz</li> <li>1.5 MHz to 1,747 MHz (with CLGD-K3018 option)</li> </ul>
	Noise Level <ul style="list-style-type: none"> <li>0 dBmV to 51 dBmV</li> </ul>
	Max. 8 x 192 MHz OFDM carriers <ul style="list-style-type: none"> <li>Max. 6 x OFDM within 252 MHz to 1,218 MHz</li> <li>Max. 3 x OFDM within 1,218 MHz to 1,794 MHz</li> </ul>
	RF impairments <ul style="list-style-type: none"> <li>AM hum</li> <li>Micro-reflections</li> <li>Narrowband interferer</li> <li>Phase noise</li> </ul>
	ARB playout disabled

<sup>1</sup> Functionality of the CLGD when Fullband AWGN is not active remains unchanged. When activating the Fullband AWGN functionality on or off, the CLGD requires a reboot.