

## 9.5 Conducted Spurious Emissions

### 9.5.1 Test Requirement:

FCC CFR 47 Rule Part 15.247 (d)

Industry Canada RSS-247 [5.5]

### 9.5.2 Test Method:

Measurements are performed according to the procedure defined in KDB 558074- Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 V03R03 and ANSI C63.10 2013.

#### **Spectrum Analyzer settings:**

##### ***Identification of Reference Level:***

RBW= 100 kHz

VBW  $\geq 3 \times$  RBW

Trace Mode= Peak Detector (Max Hold)

Sweep time= Auto

Span  $\geq 1.5$  times the DTS bandwidth

Peak Marker function to determine the max PSD level.

##### ***Conducted Spurious Emissions:***

RBW= 1 MHz

VBW  $\geq 3 \times$  RBW

Trace Mode= Peak Detector (Max Hold)

Sweep Points = 30,000

Sweep time= Auto

Span= 30 MHz- 12GHz; 12 GHz – 25 GHz

### 9.5.3 Limits:

All spurious emissions atleast 30 dBc (since using Average Power).

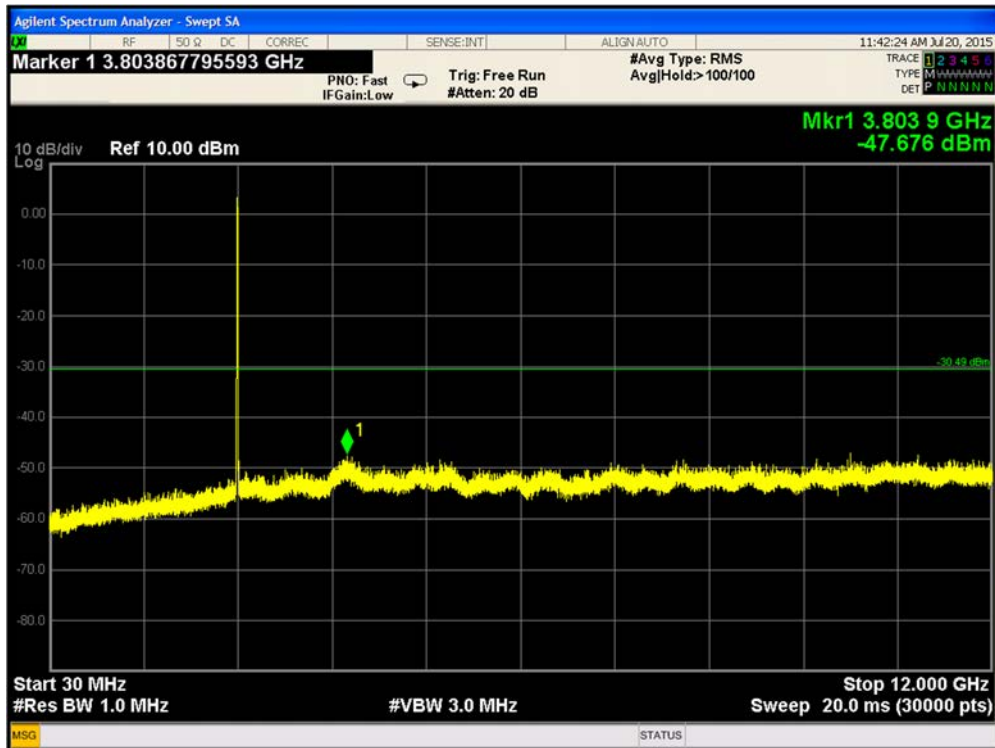
### 9.5.4 Test Result:

Pass.

9.5.5 Test Data:



Plot 9-97. Reference Level Measurement 802.11b Path A Ch1



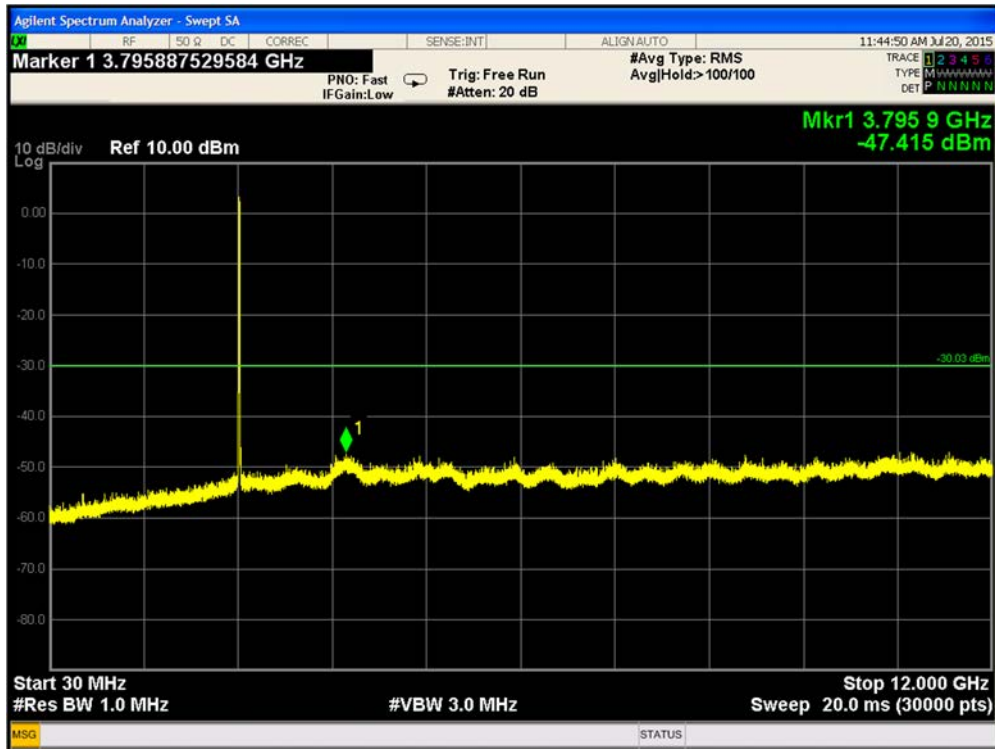
Plot 9-98. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path A CH1



Plot 9-99. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path A CH1



Plot 9-100. Reference Level Measurement 802.11b Path A Ch6



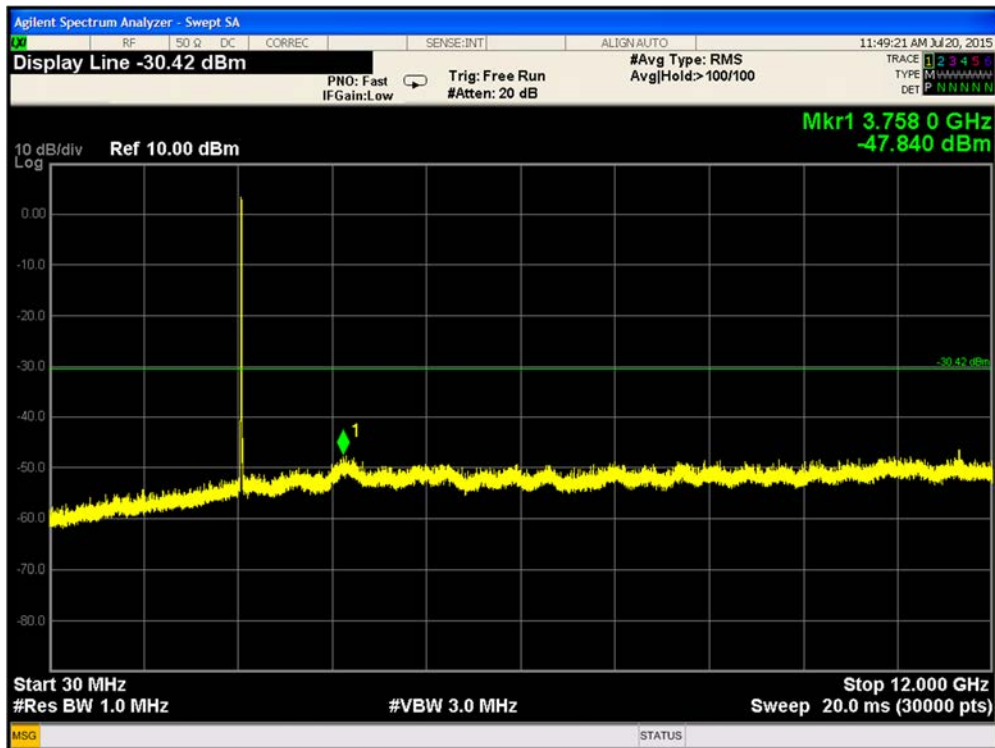
Plot 9-101. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path A CH6



Plot 9-102. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path A CH6



Plot 9-103. Reference Level Measurement 802.11b Path A Ch11



Plot 9-104. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path A CH11

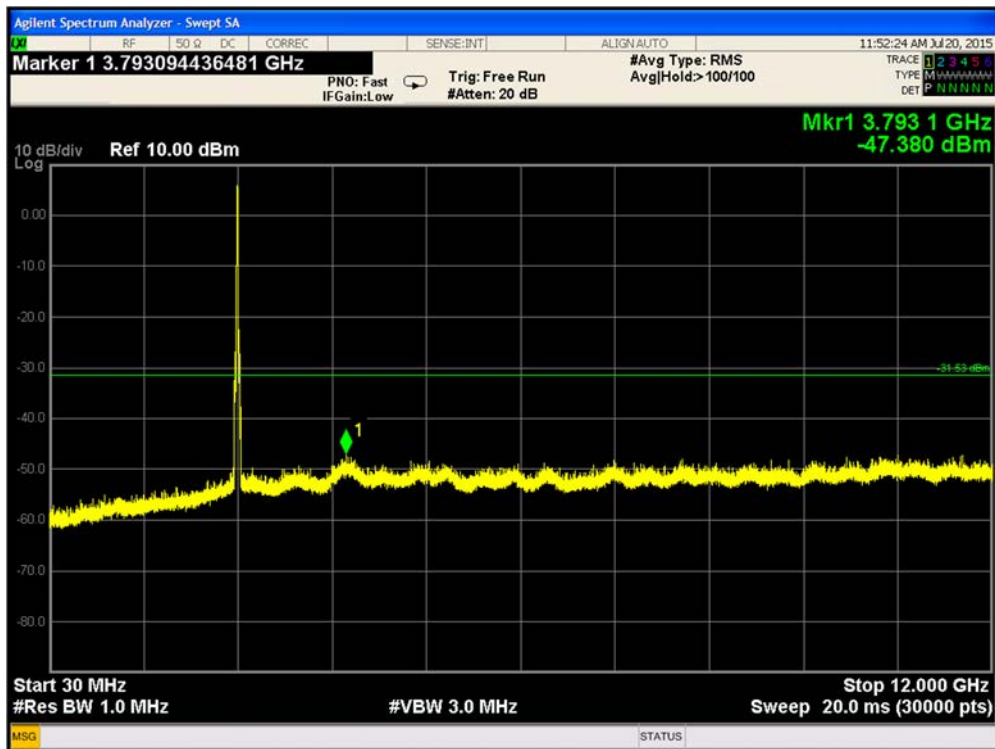


Plot 9-105. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path A CH11



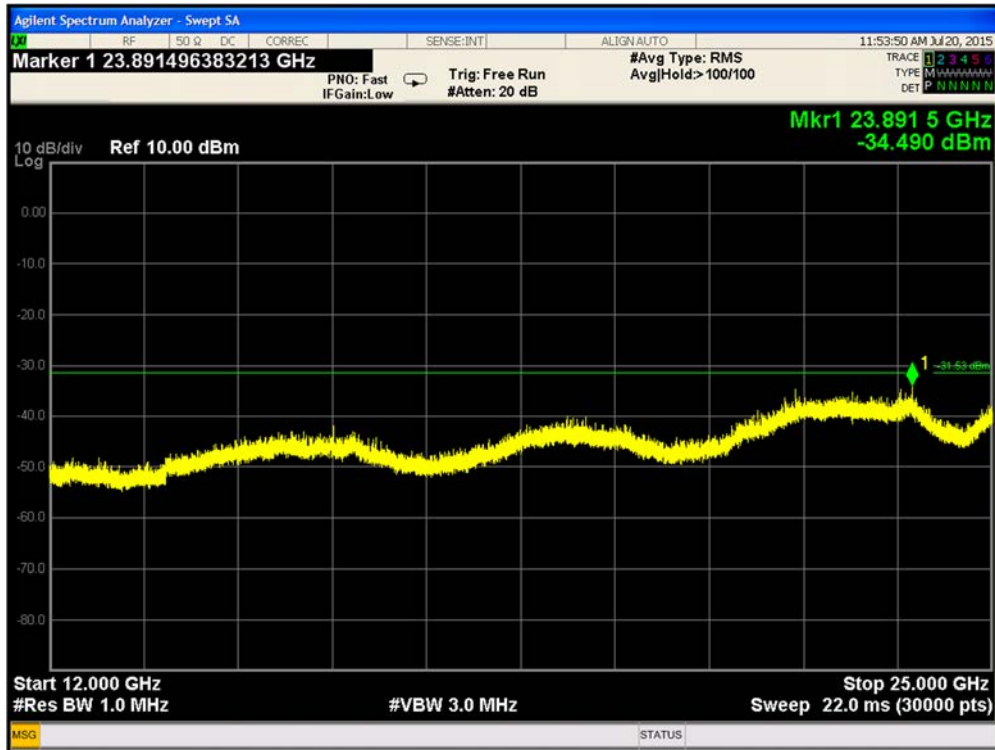


Plot 9-106. Reference Level Measurement 802.11g Path A Ch1



Plot 9-107. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path A CH1

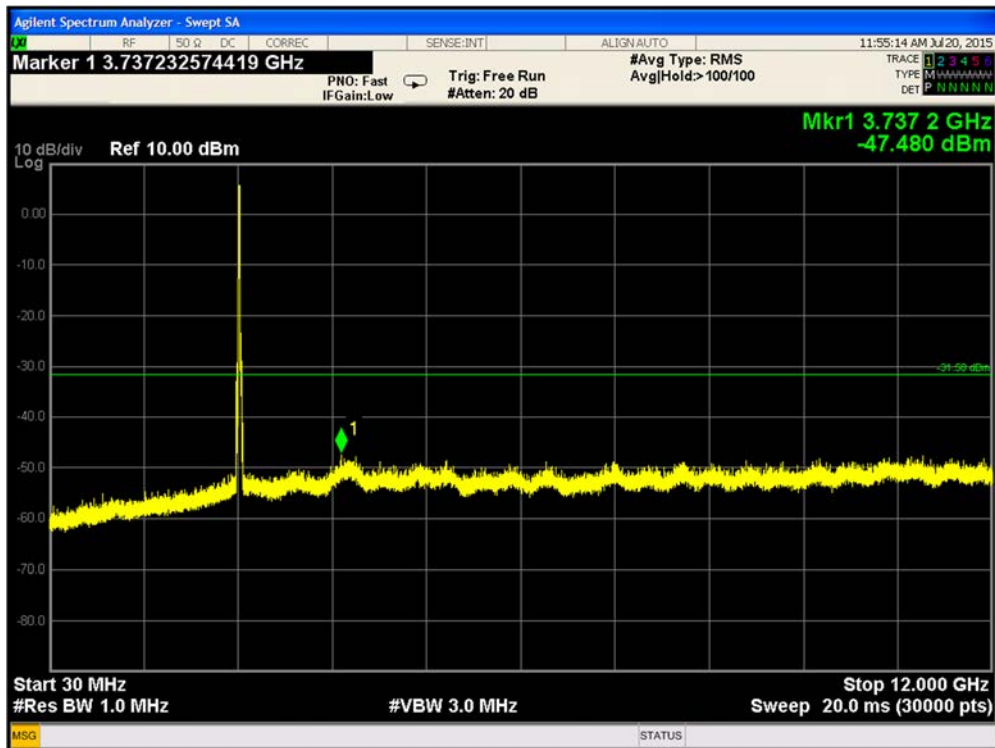




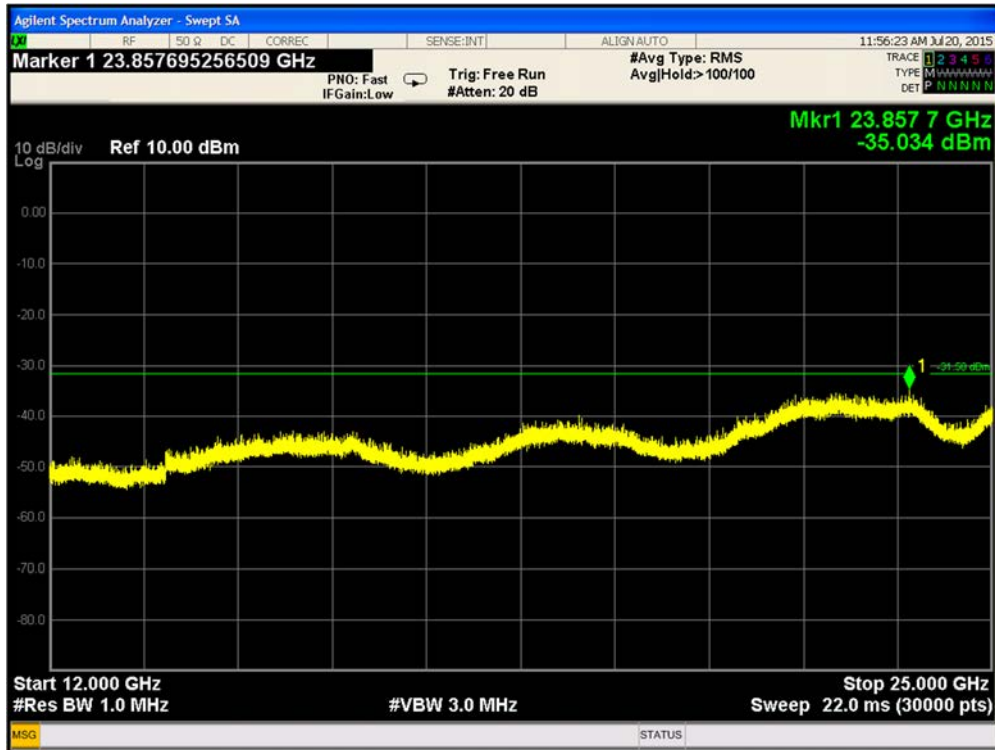
Plot 9-108. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path A CH1



Plot 9-109. Reference Level Measurement 802.11g Path A Ch6



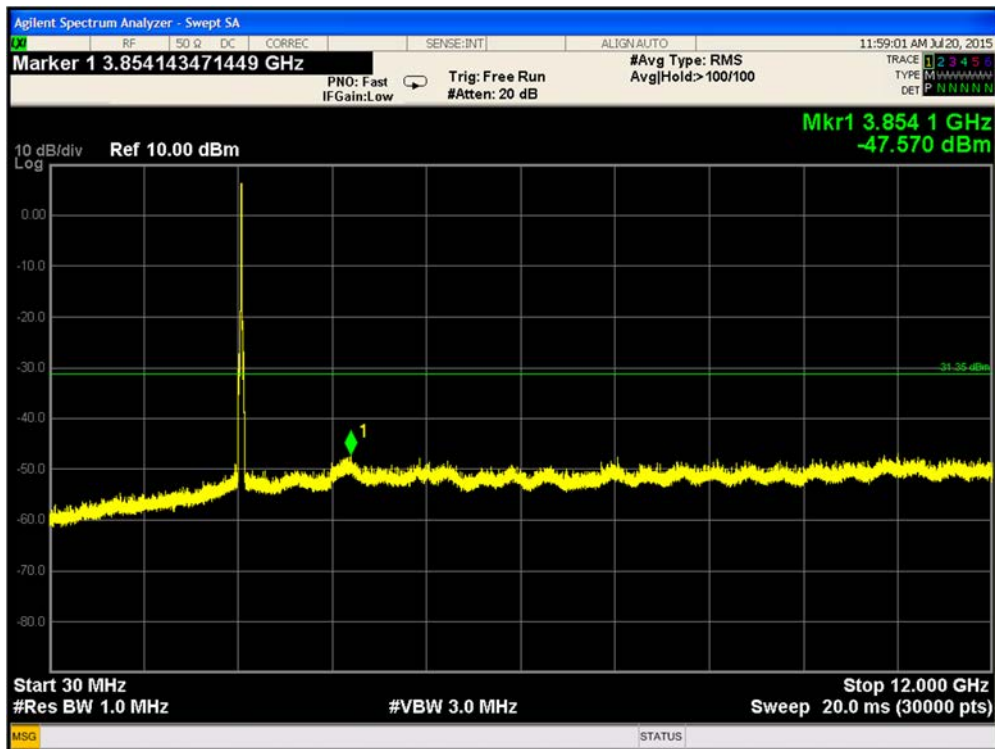
Plot 9-110. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path A CH6



Plot 9-110. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path A CH6



Plot 9-111. Reference Level Measurement 802.11g Path A Ch11



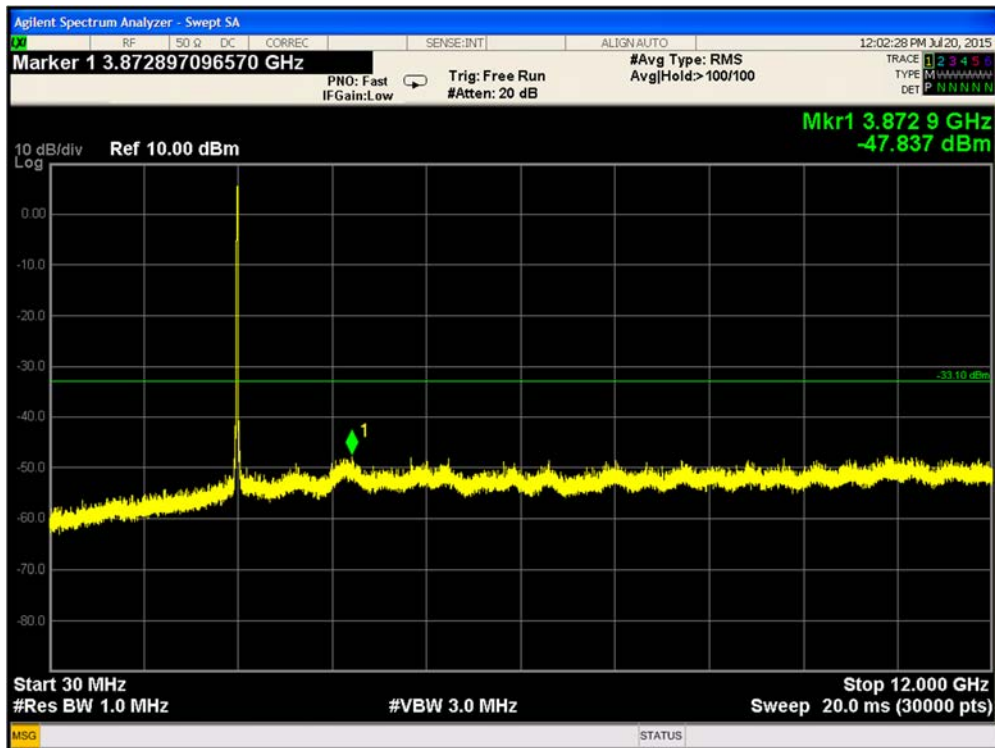
Plot 9-112. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path A CH11



Plot 9-113. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path A CH11



Plot 9-114. Reference Level Measurement 802.11n Path A Ch1

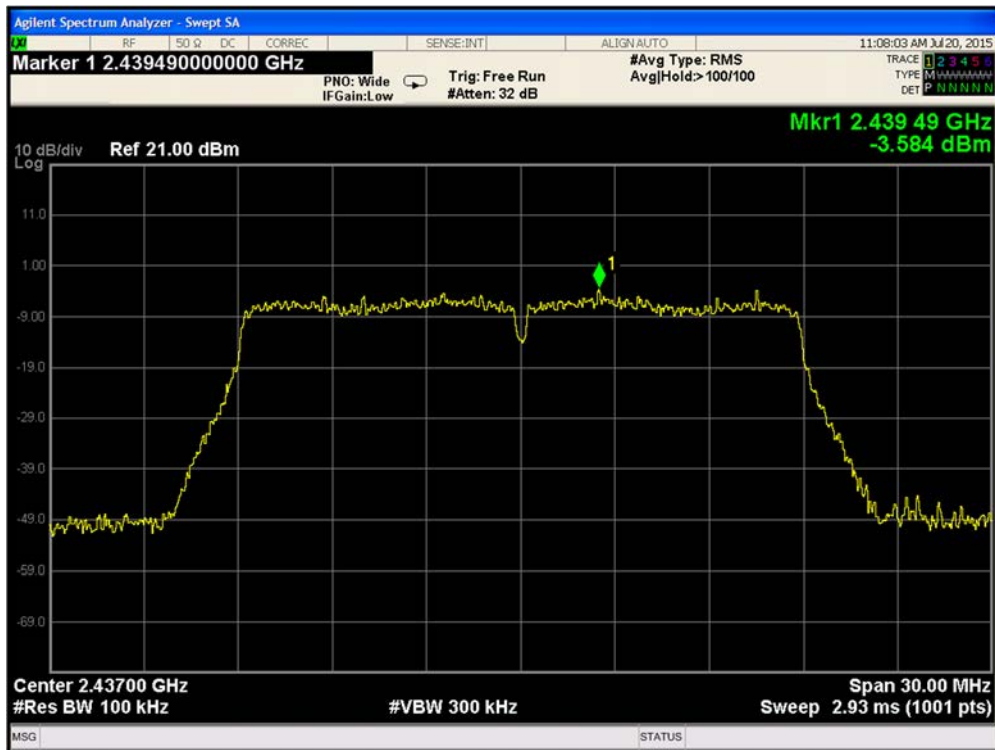


Plot 9-115. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path A CH1

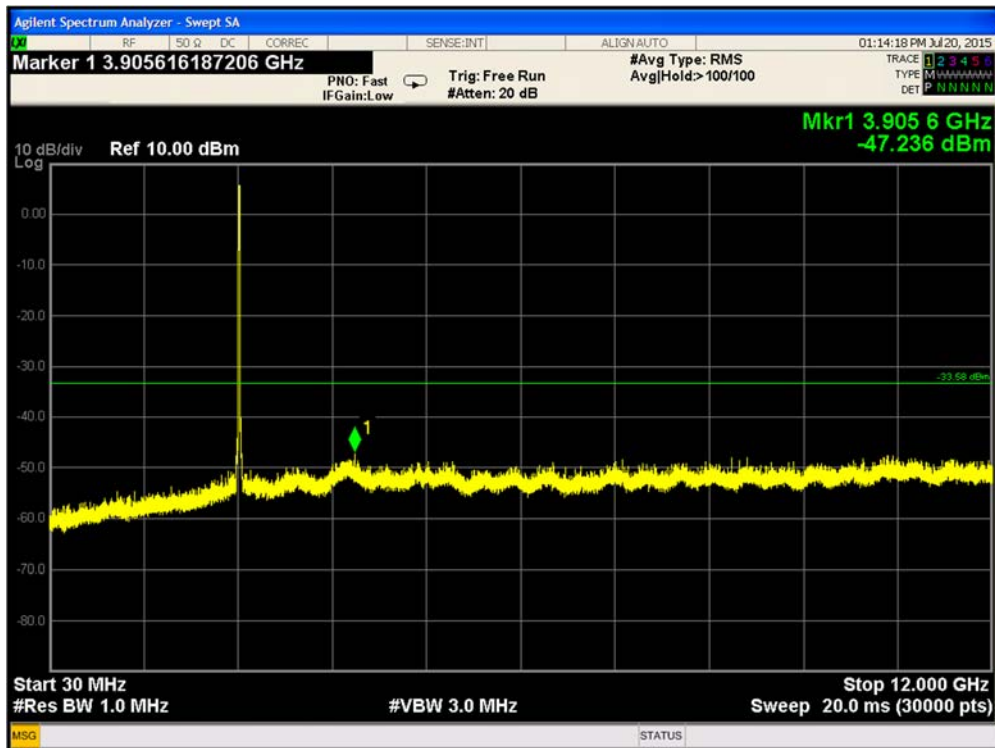


Plot 9-116. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path A CH1





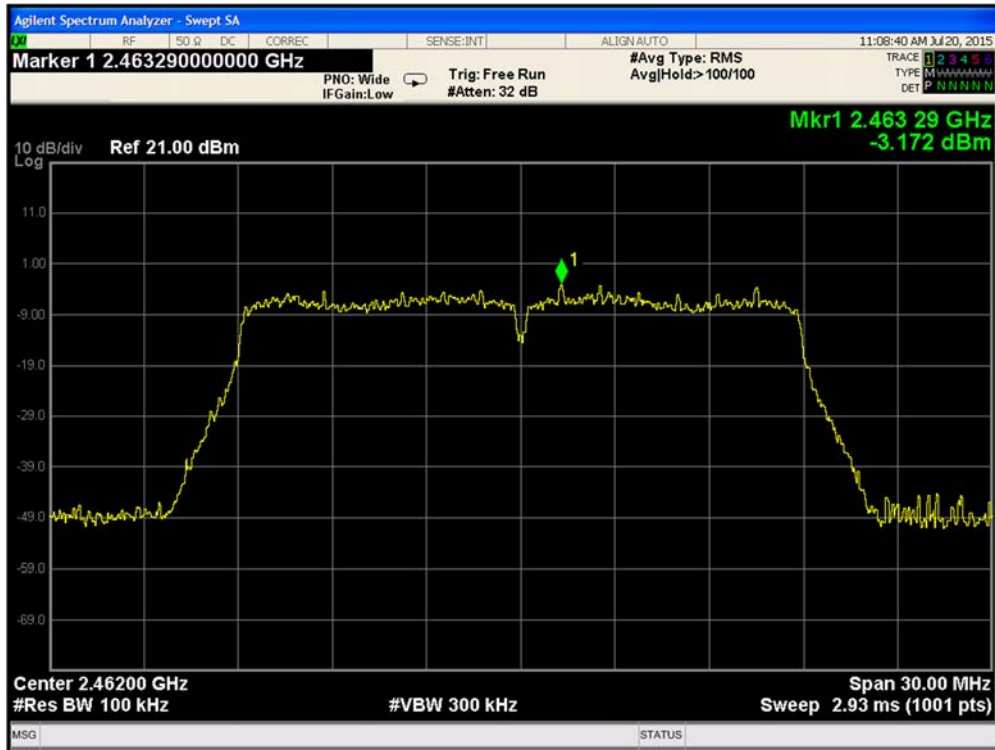
Plot 9-117. Reference Level Measurement 802.11n Path A Ch6



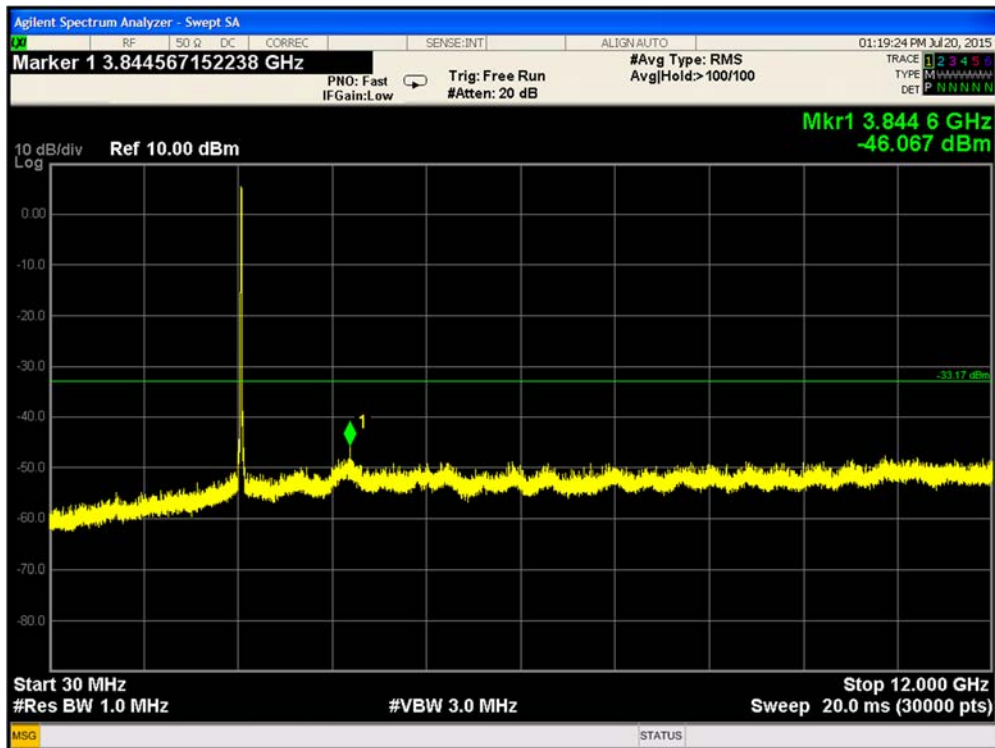
Plot 9-118. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path A CH6



Plot 9-119. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path A CH6



Plot 9-120. Reference Level Measurement 802.11n Path A Ch11



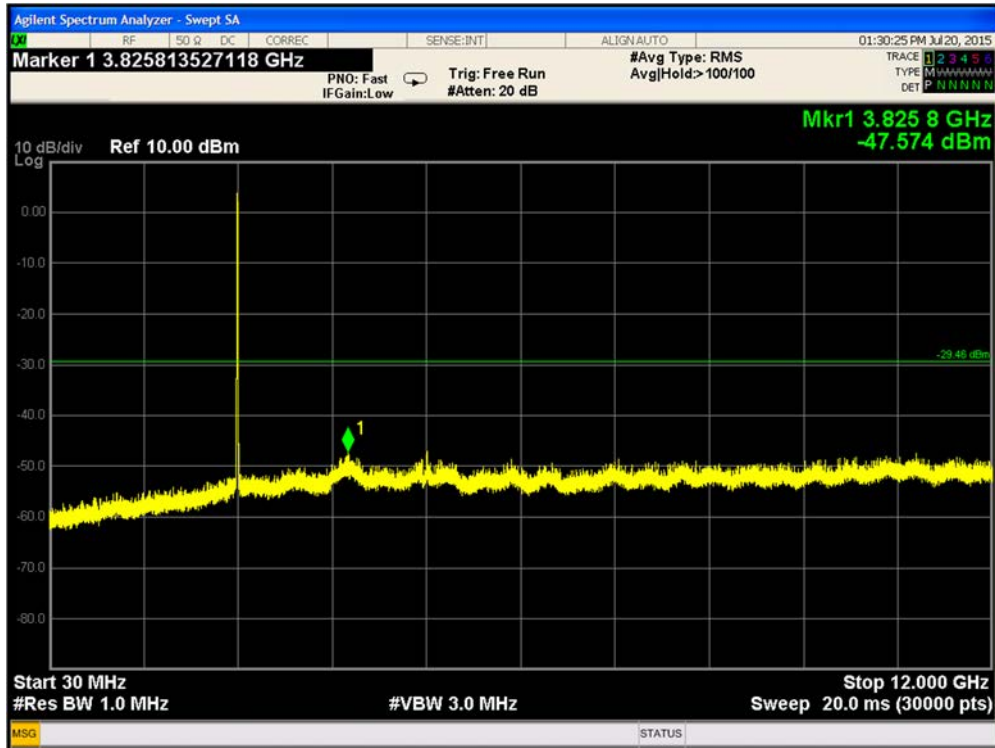
Plot 9-121. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path A CH11



Plot 9-122. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path A CH11



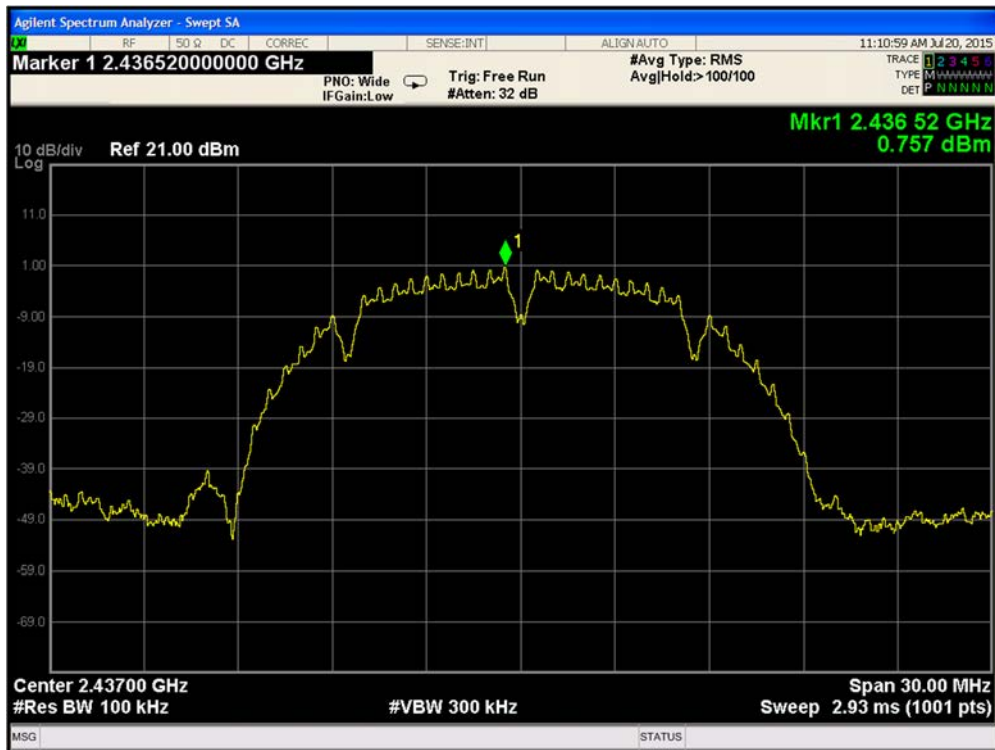
Plot 9-123. Reference Level Measurement 802.11b Path B Ch1



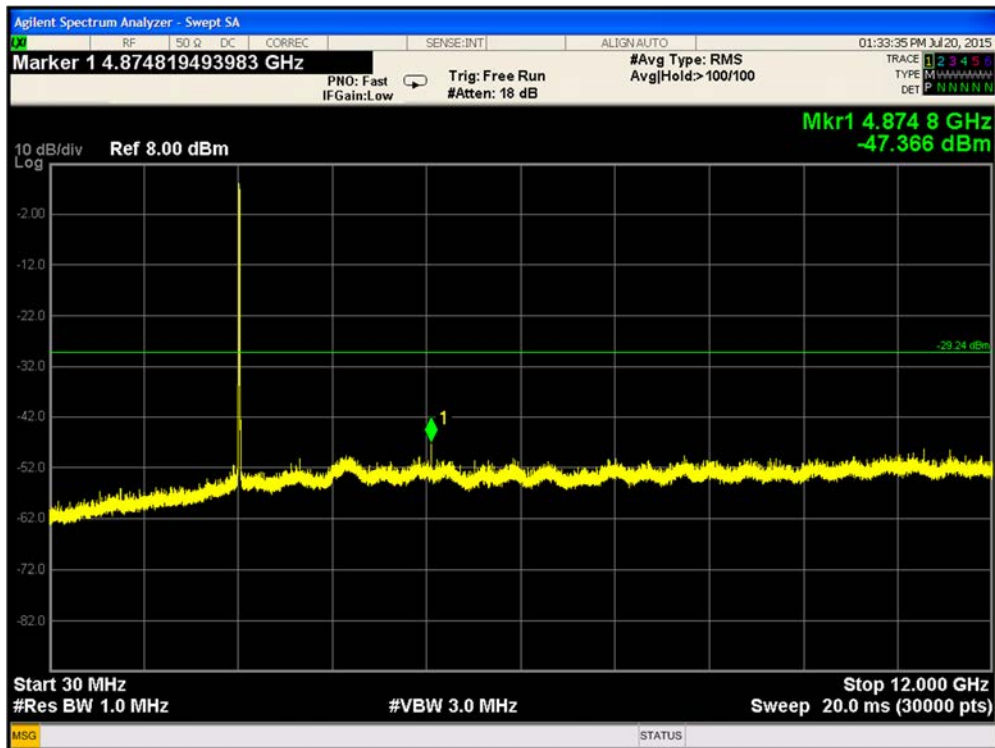
Plot 9-124. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path B CH1



Plot 9-125. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path B CH1

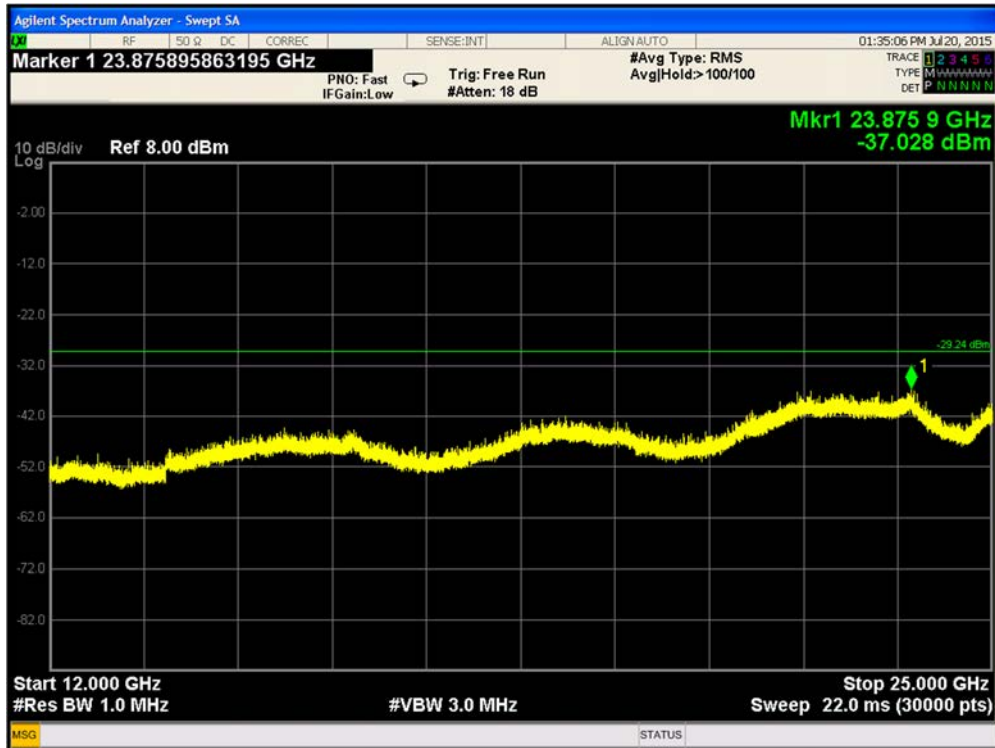


Plot 9-126. Reference Level Measurement 802.11b Path B Ch6



Plot 9-127. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path B CH6

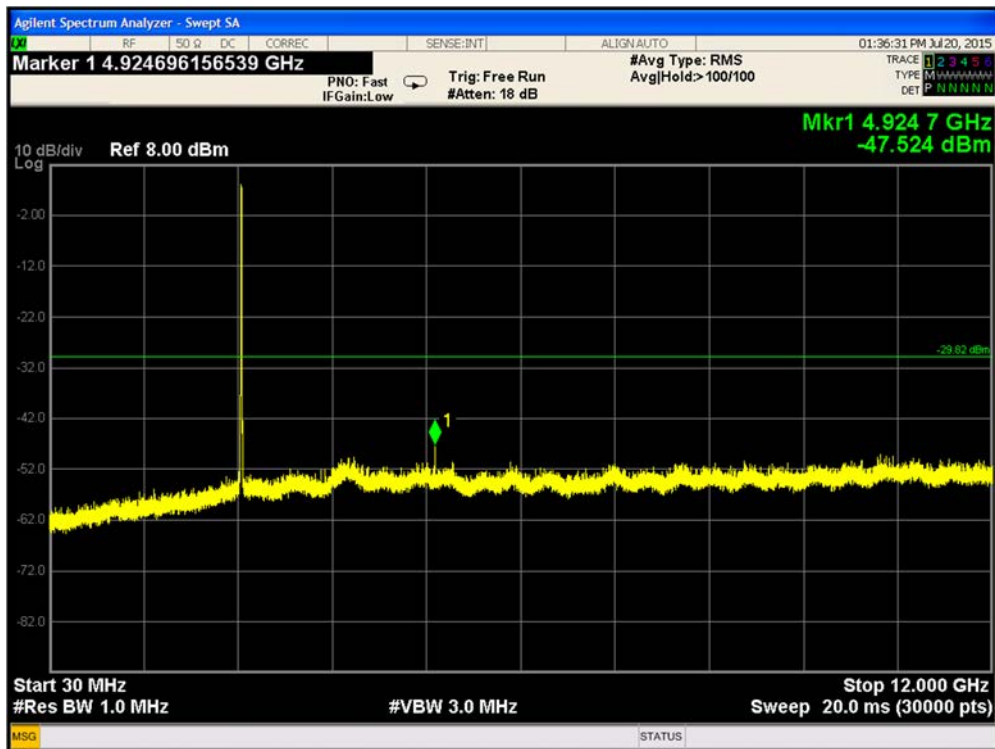




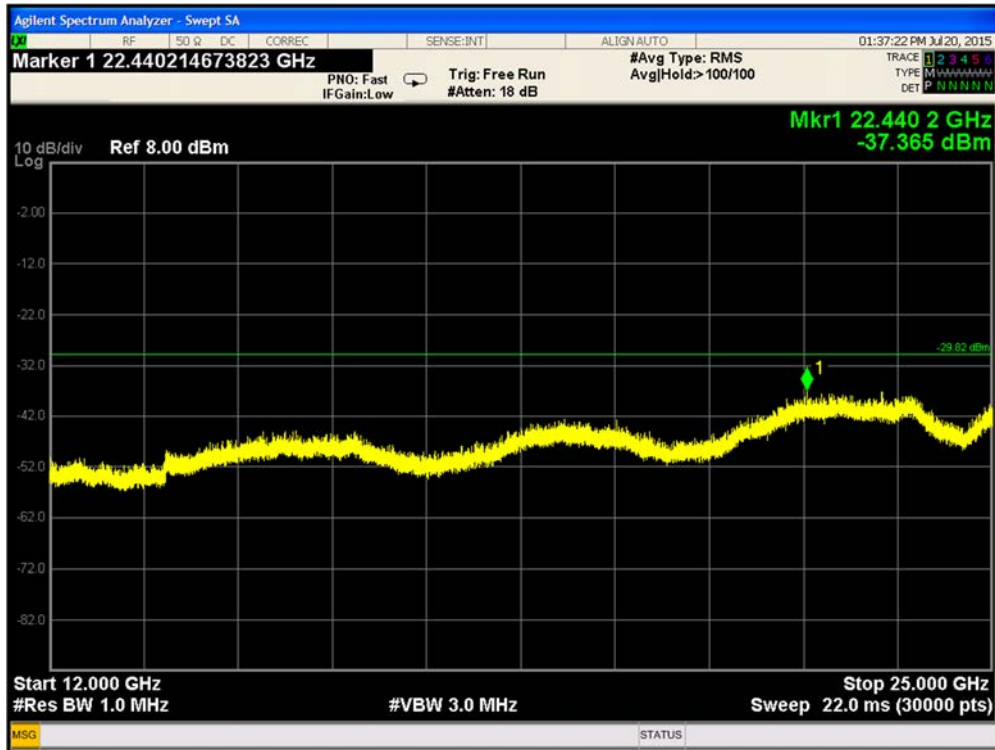
Plot 9-128. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path B CH6



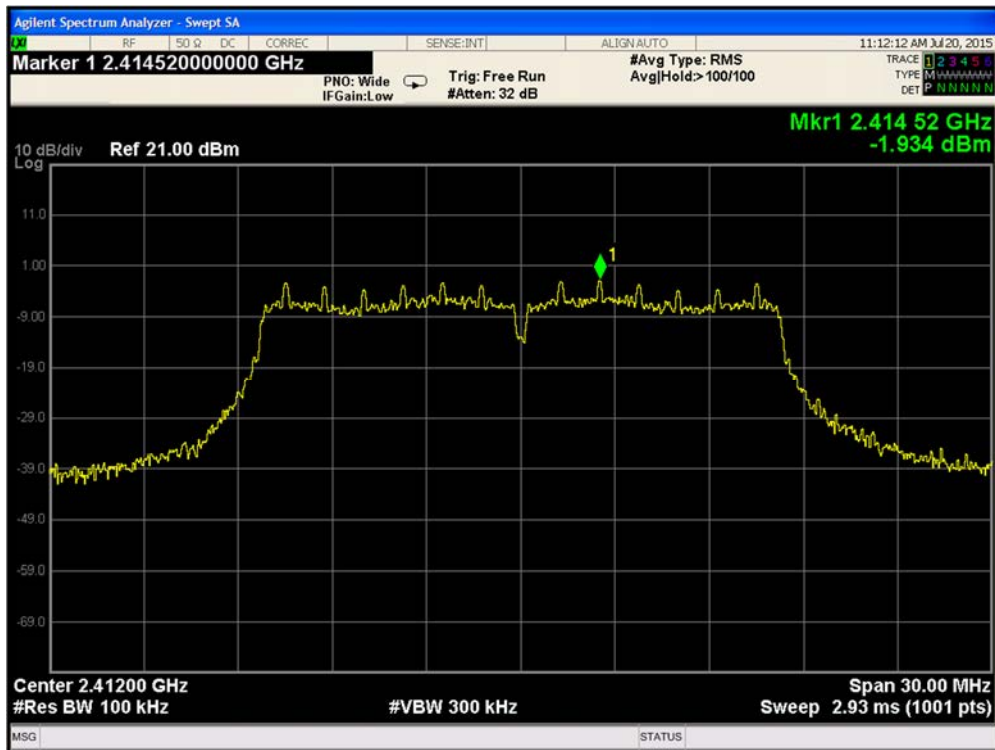
Plot 9-129. Reference Level Measurement 802.11b Path B Ch11



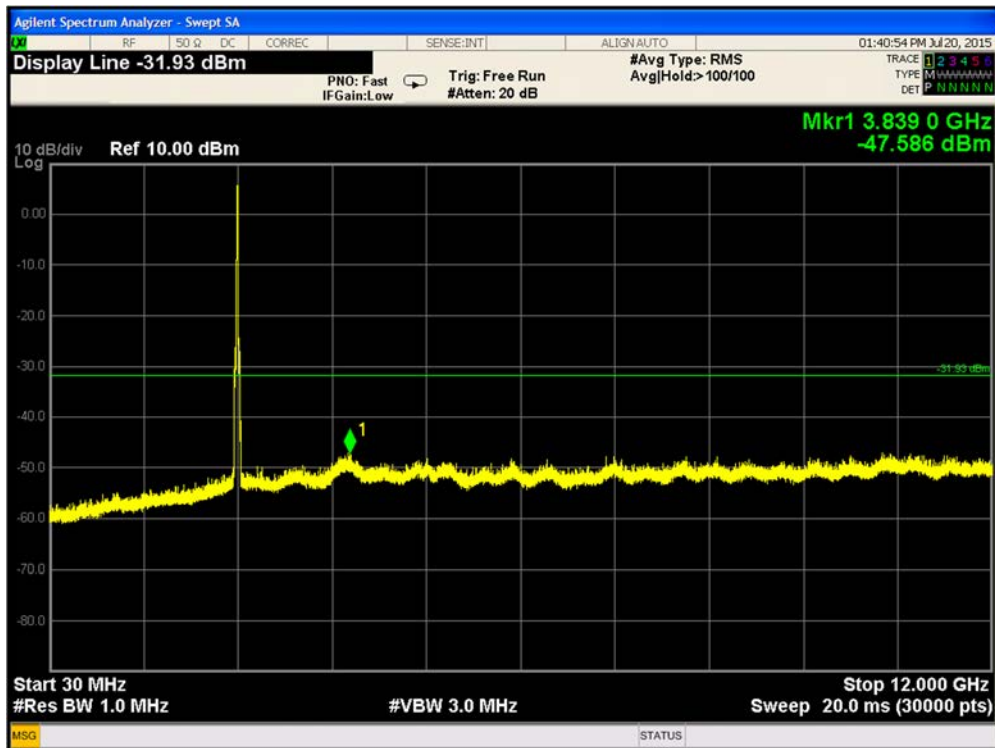
Plot 9-130. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path B CH11



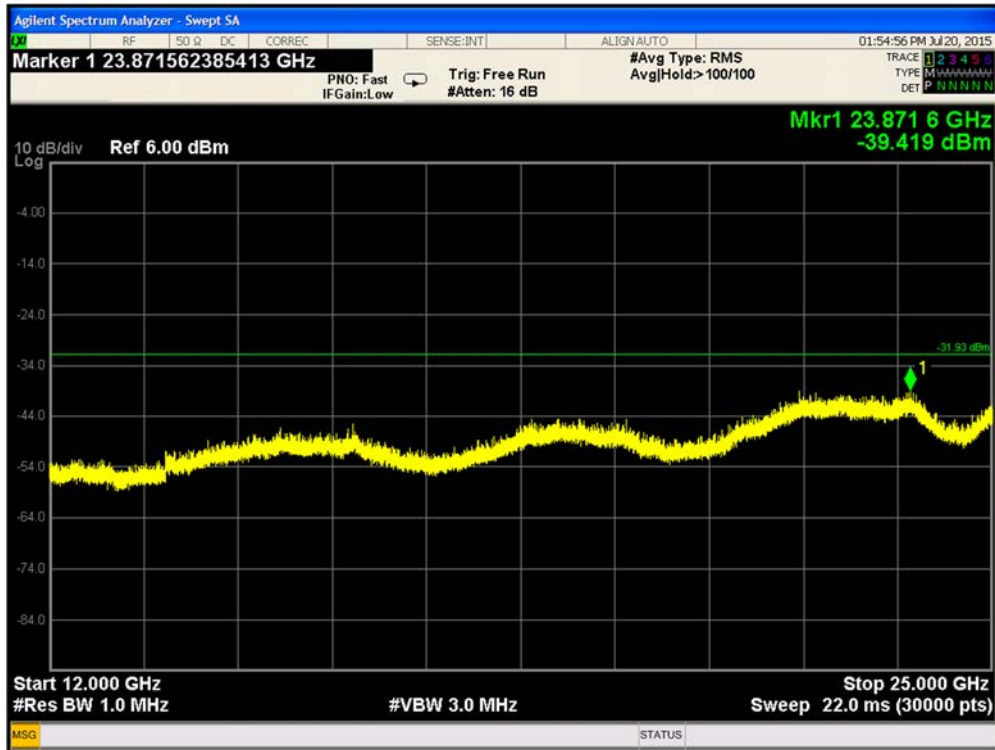
Plot 9-131. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path B CH11



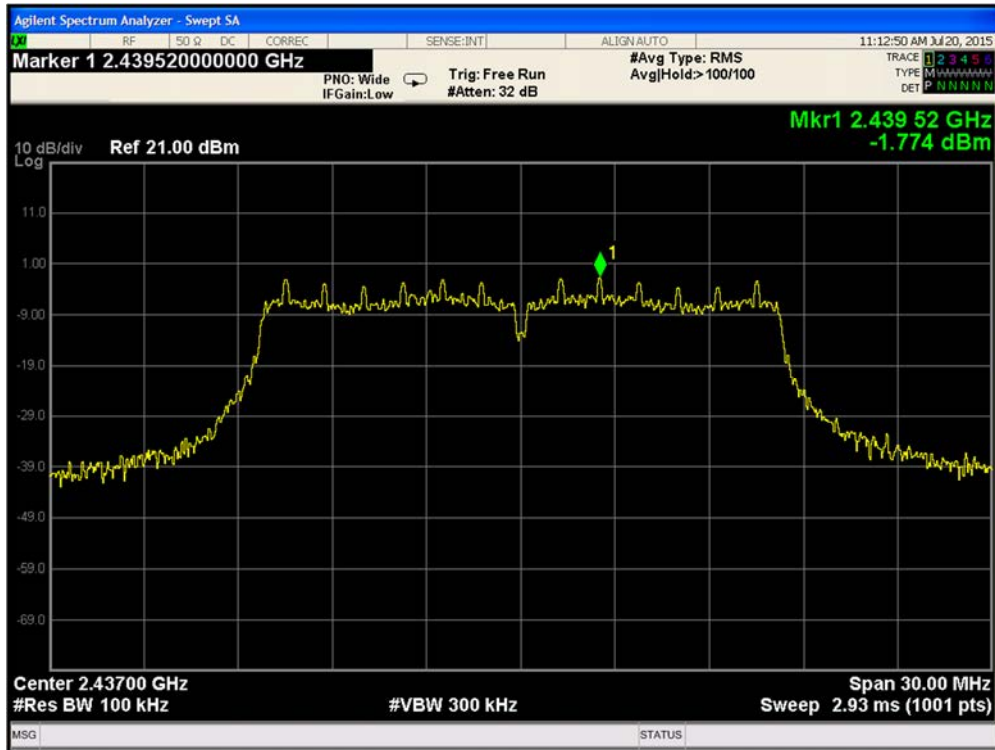
Plot 9-132. Reference Level Measurement 802.11g Path B Ch1



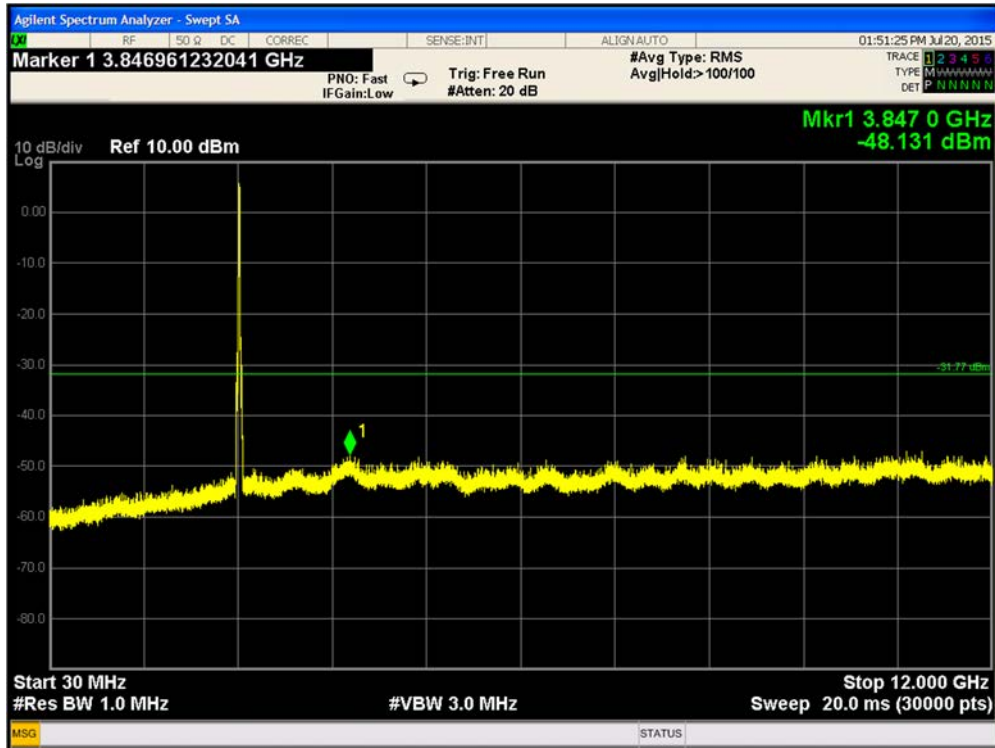
Plot 9-133. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path B CH1



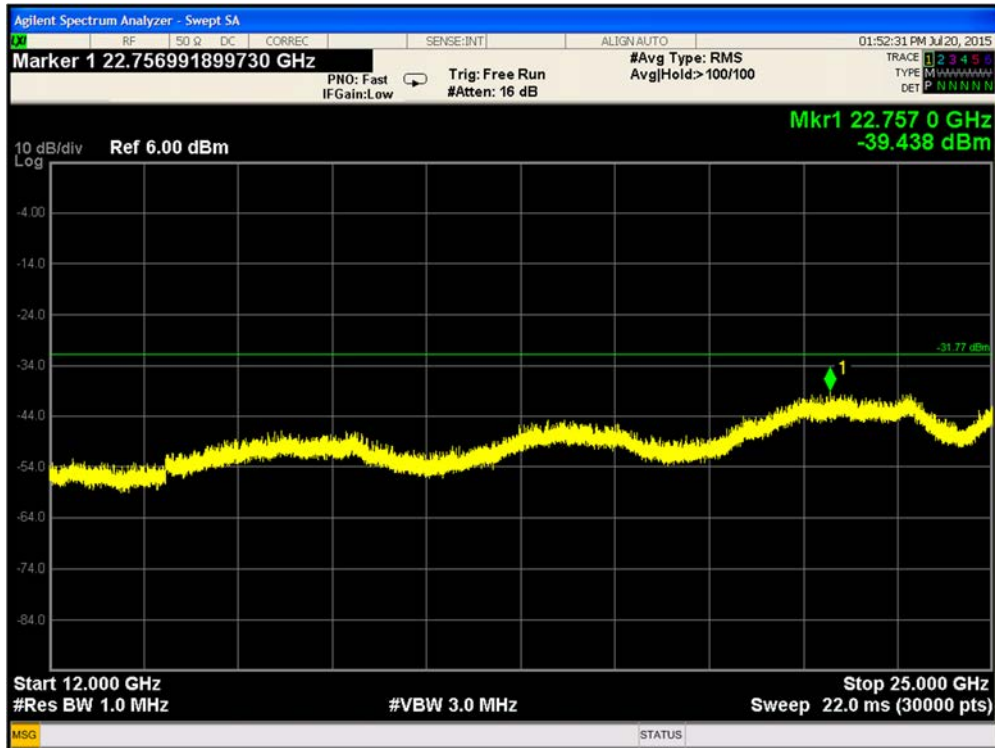
Plot 9-134. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path B CH1



Plot 9-135. Reference Level Measurement 802.11g Path B Ch6

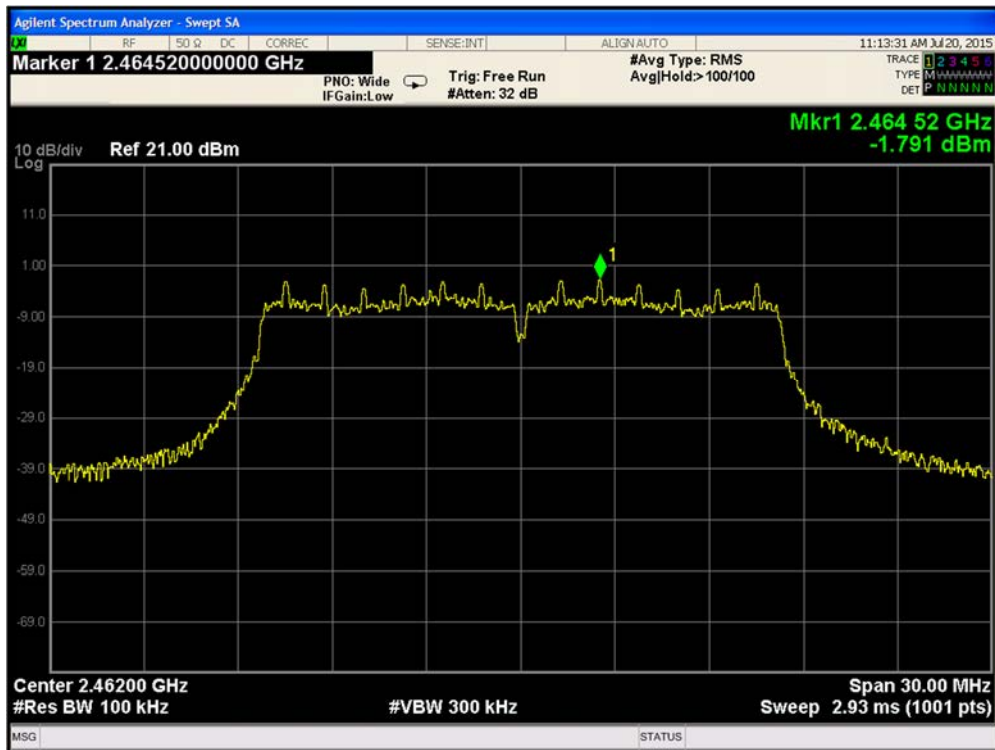


Plot 9-136. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path B CH6

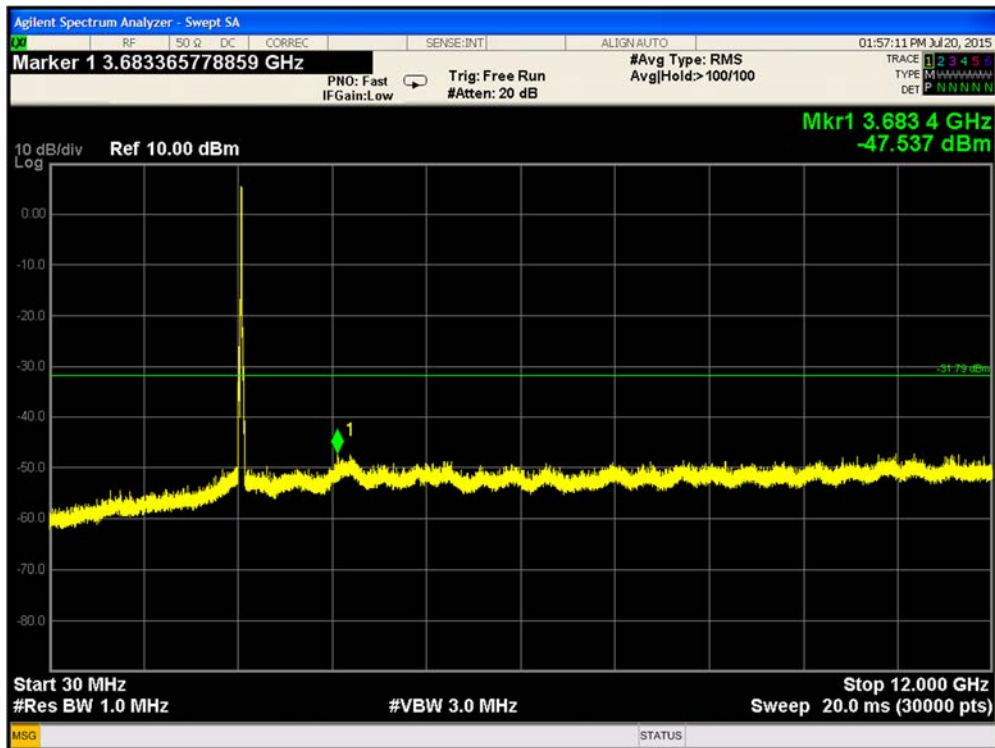


Plot 9-137. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path B CH6

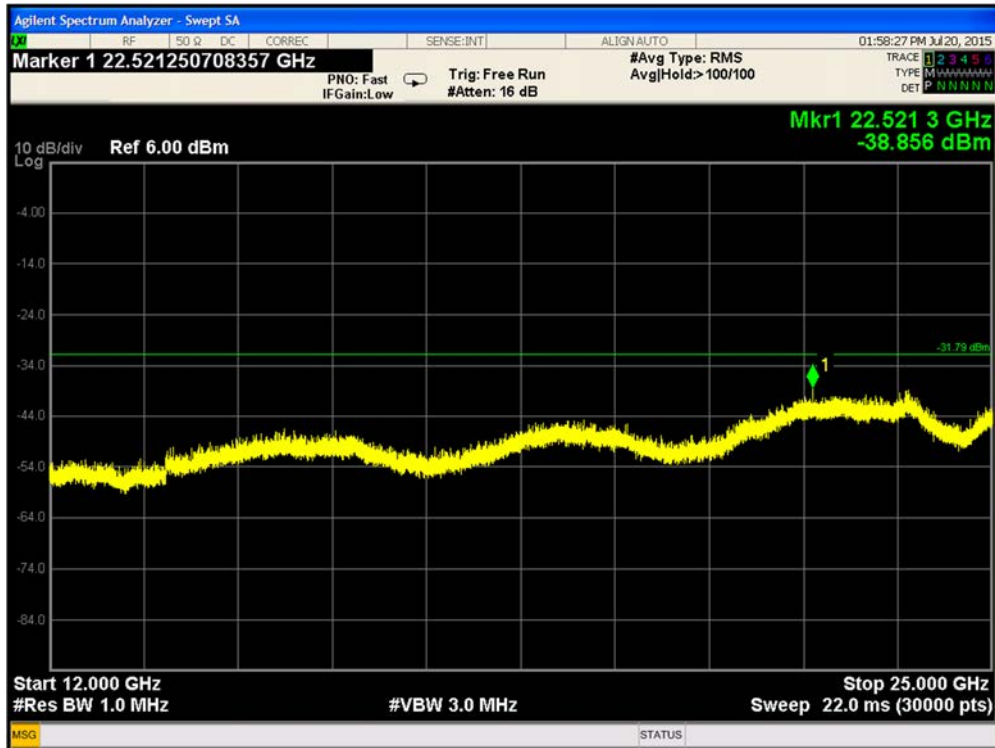




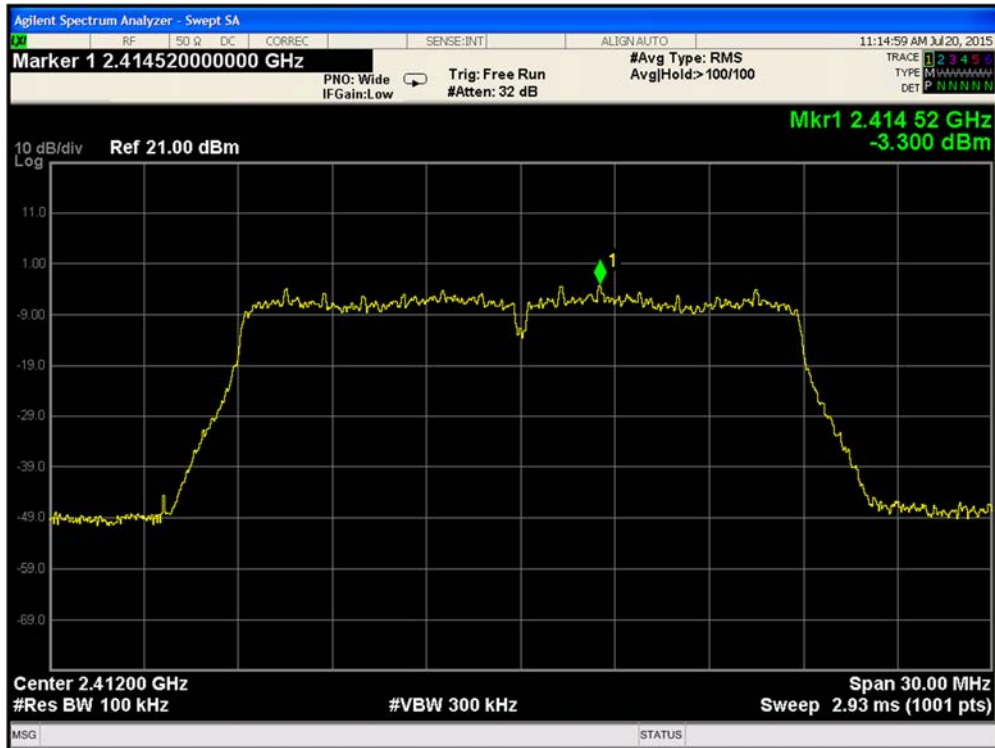
Plot 9-138. Reference Level Measurement 802.11g Path B Ch11



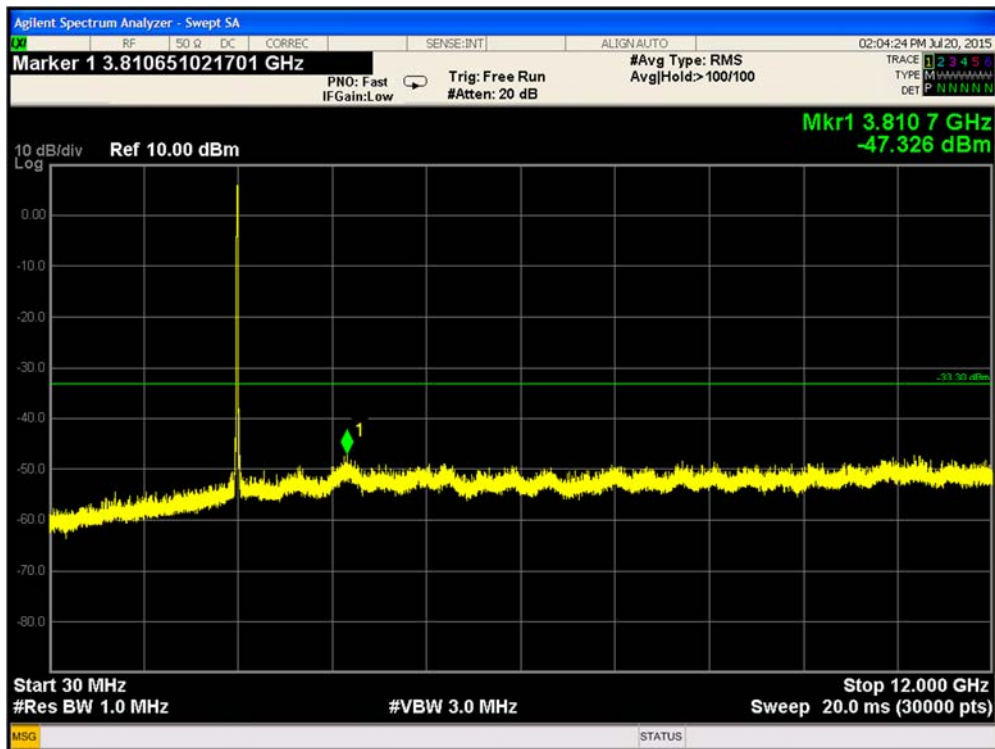
Plot 9-139. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path B CH11



Plot 9-140. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path B CH11



Plot 9-141. Reference Level Measurement 802.11n Path B Ch1



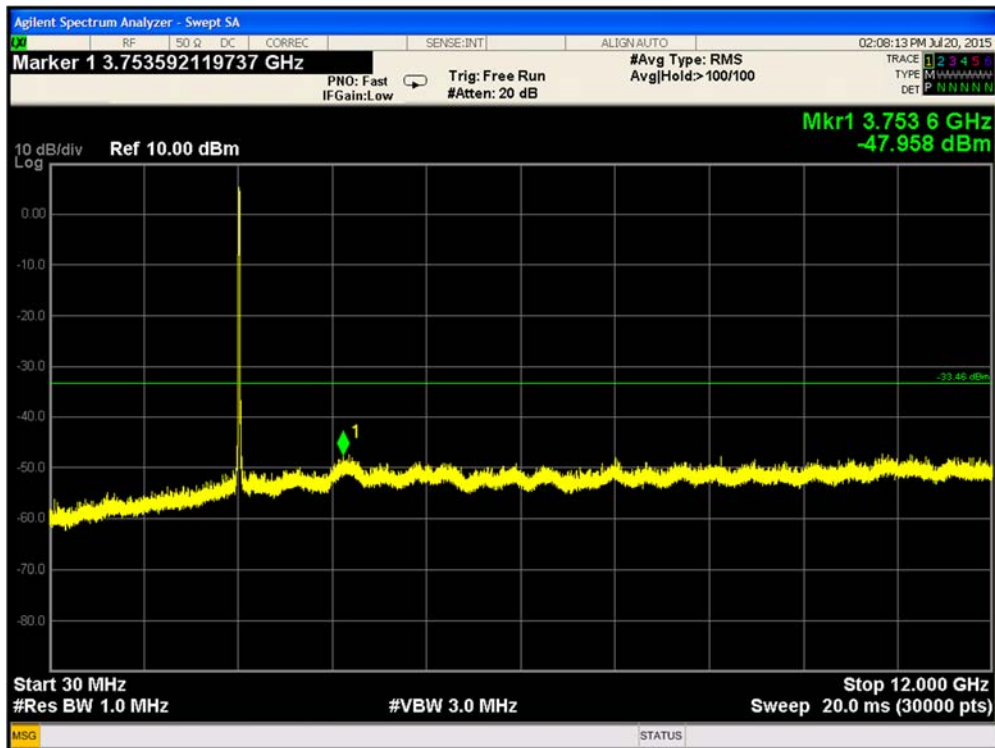
Plot 9-142. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path B CH1



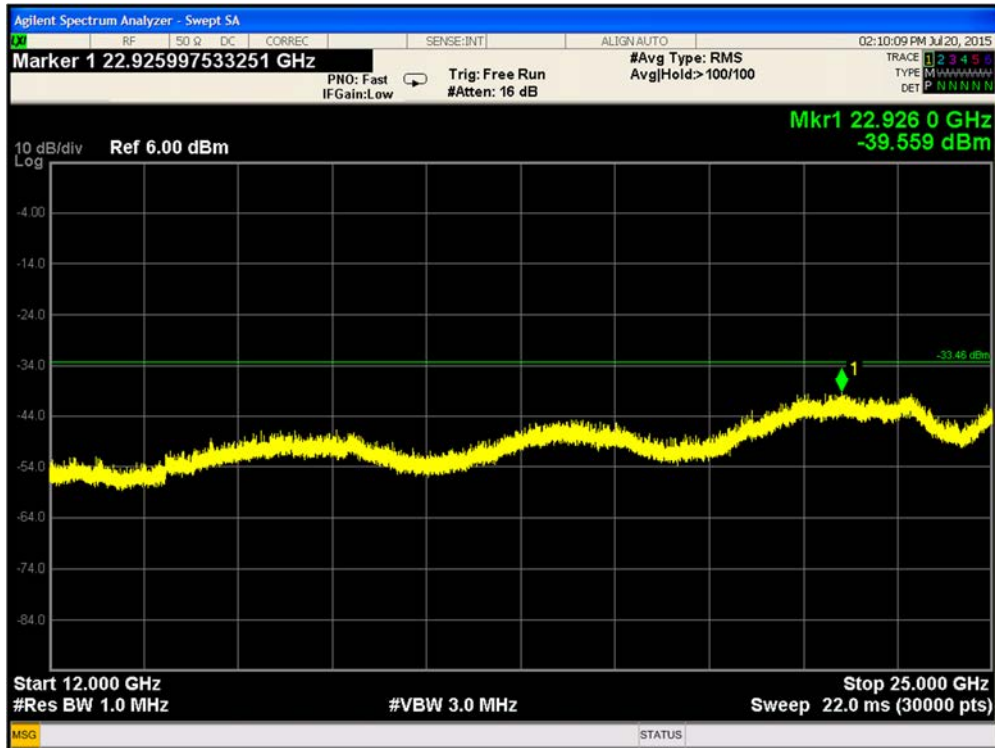
Plot 9-143. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path B CH1



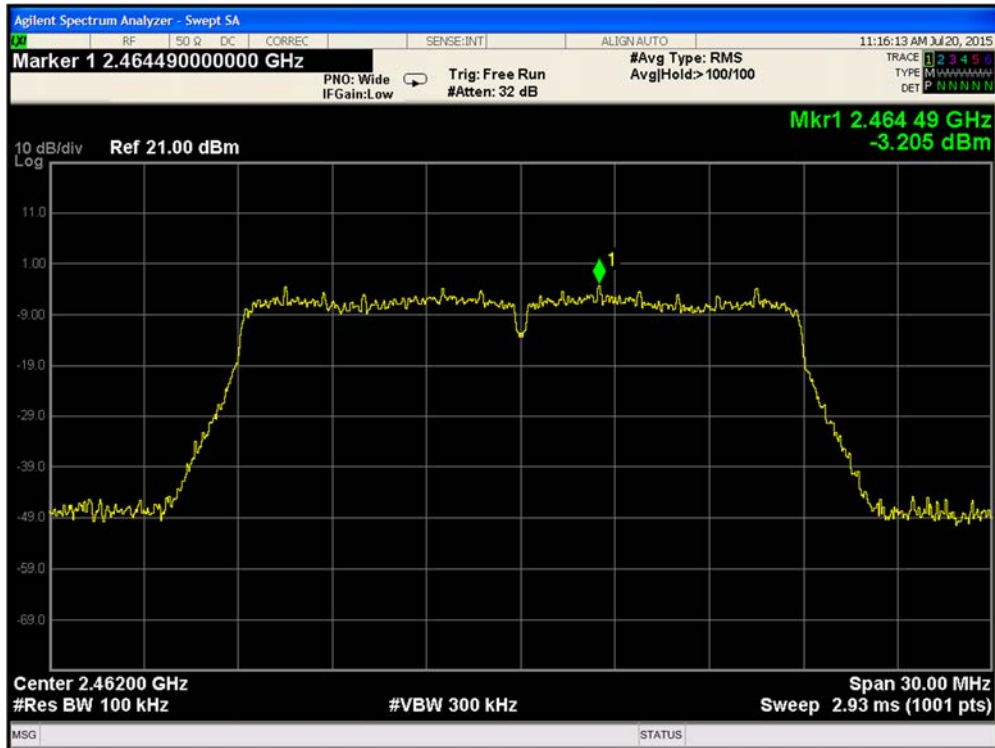
Plot 9-144. Reference Level Measurement 802.11n Path B Ch6



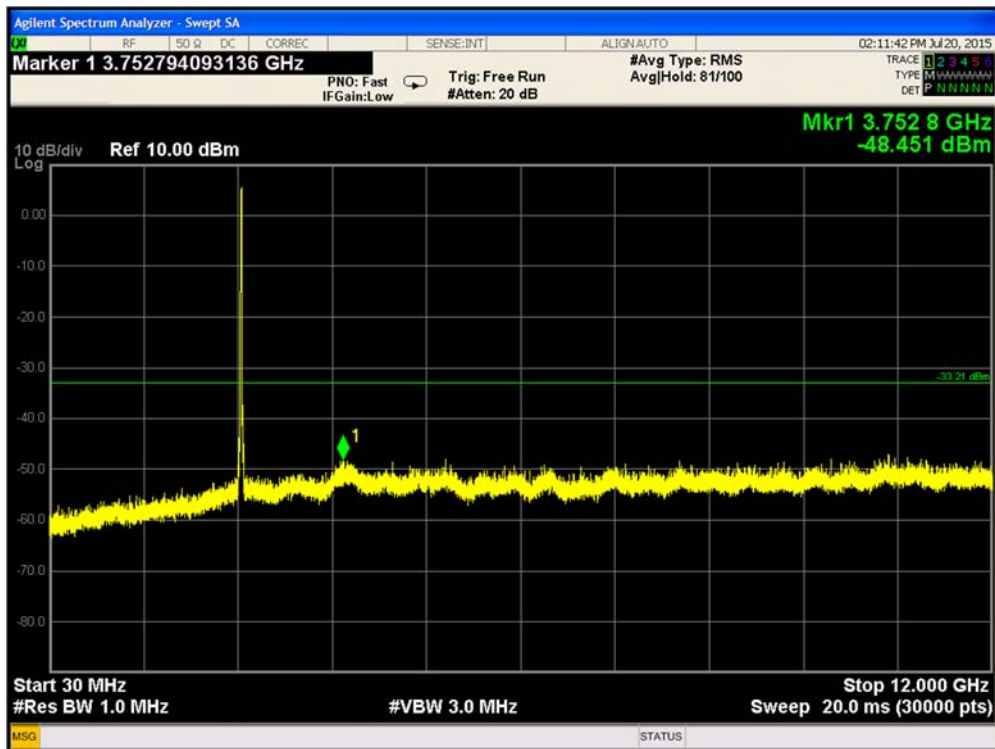
Plot 9-145. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path B CH6



Plot 9-146. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path B CH6

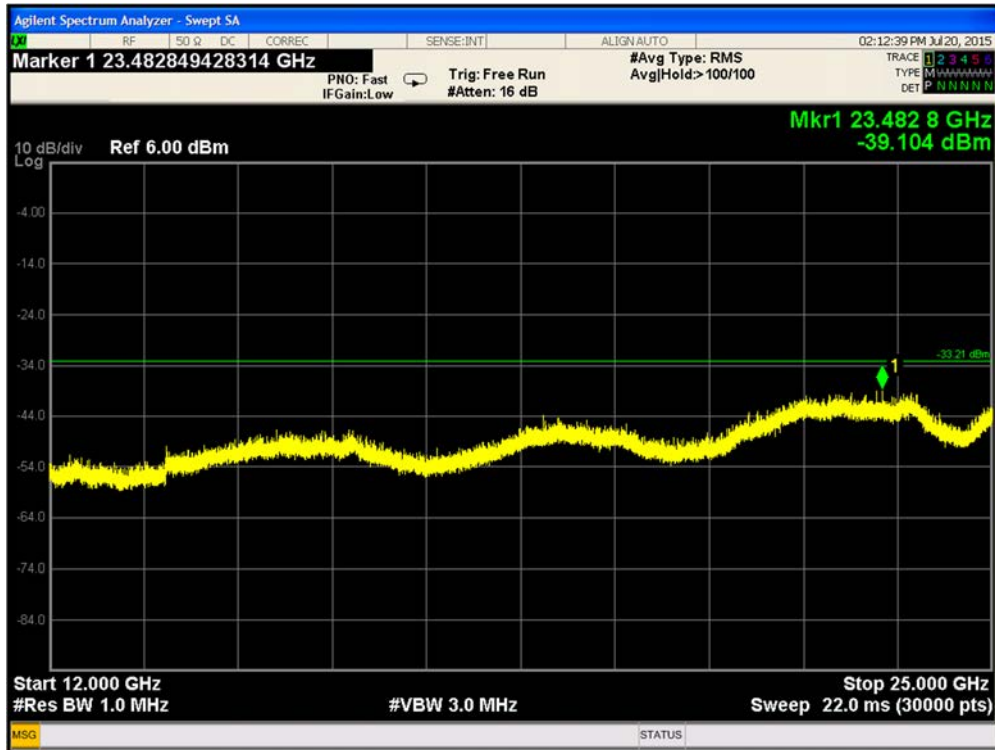


Plot 9-147. Reference Level Measurement 802.11n Path B Ch11



Plot 9-148. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path B CH11

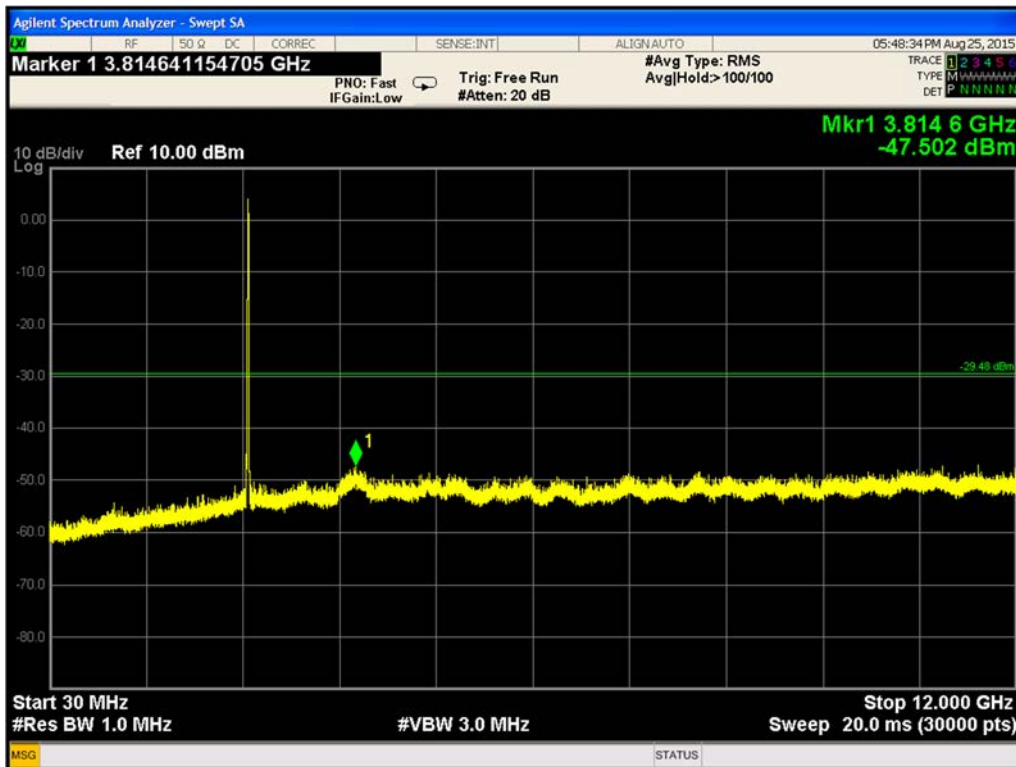




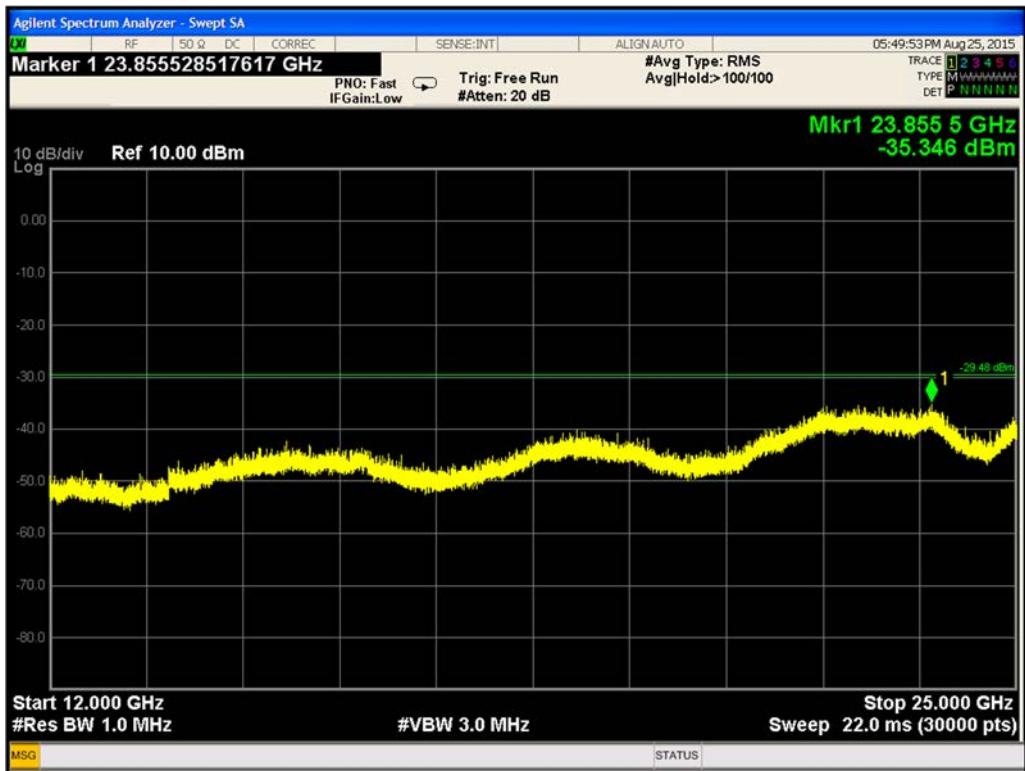
Plot 9-149. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path B CH11



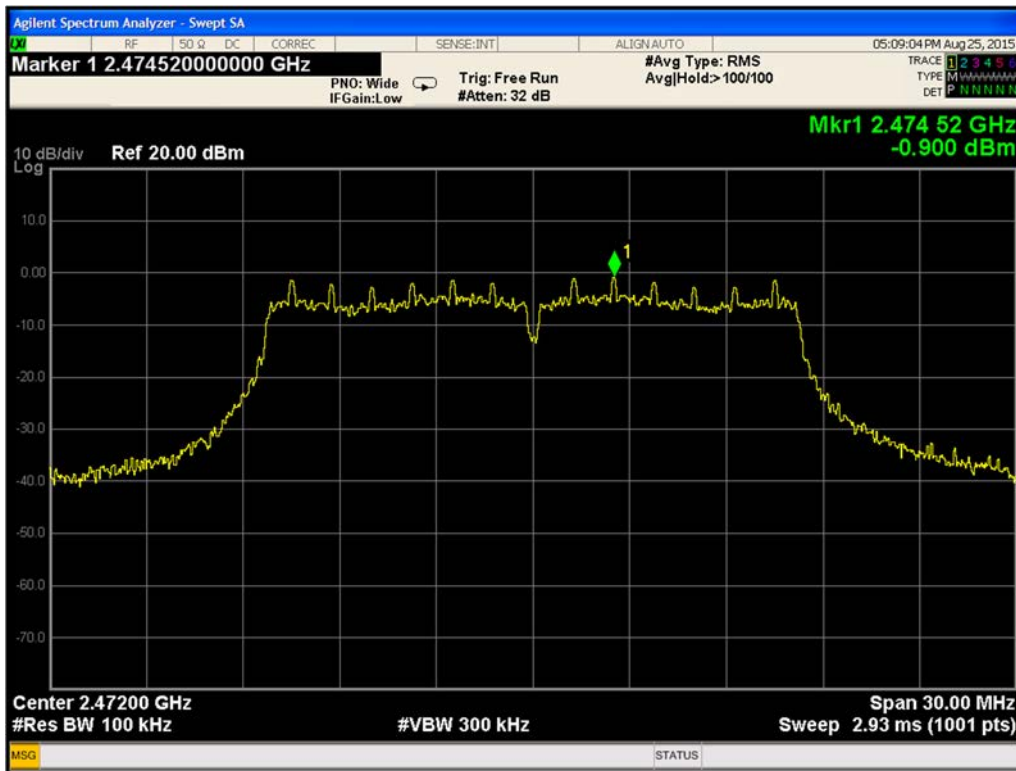
Plot 9-150. Reference Level Measurement 802.11b Path A Ch13



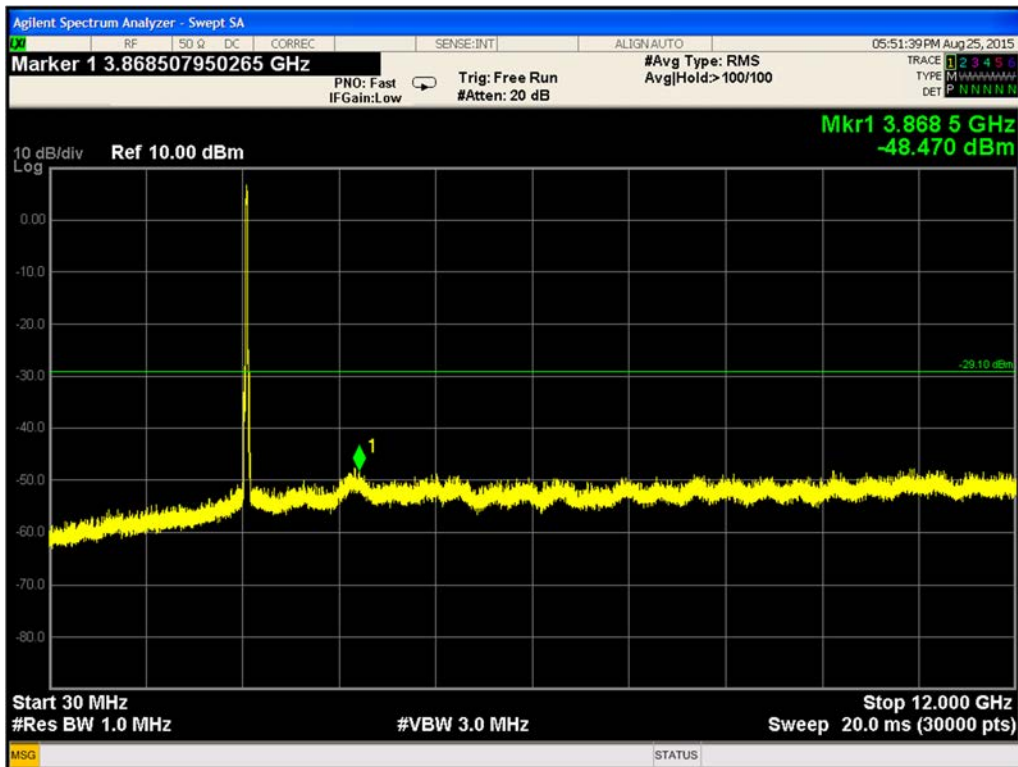
Plot 9-151. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path A CH13



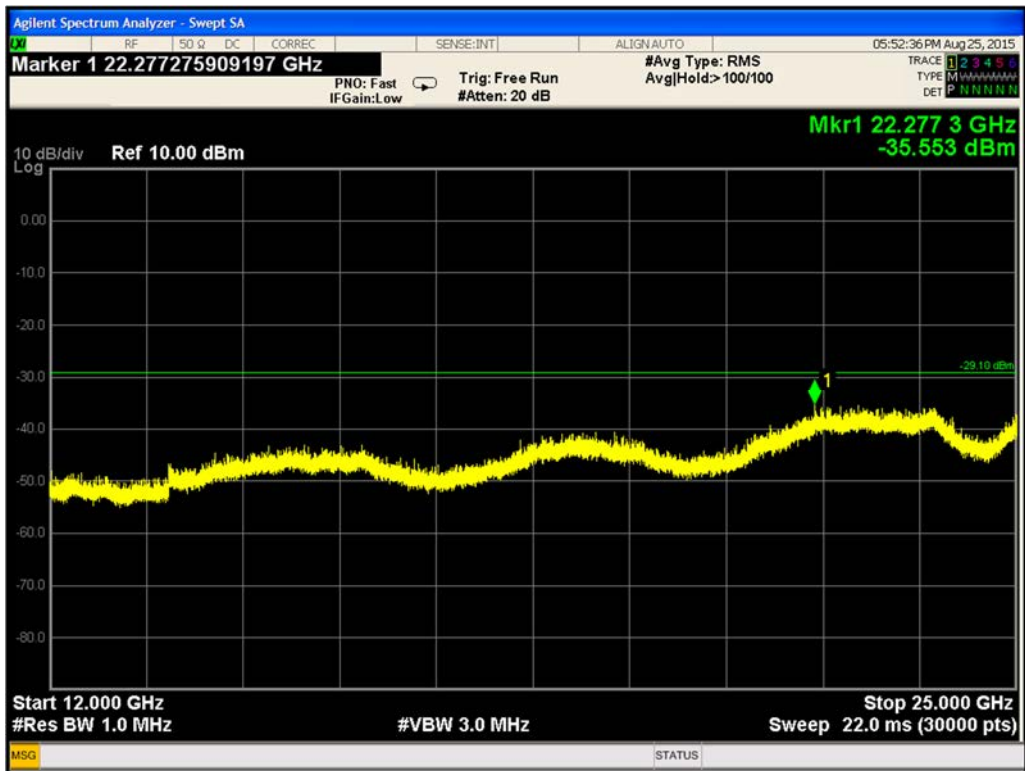
Plot 9-152. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path A CH13



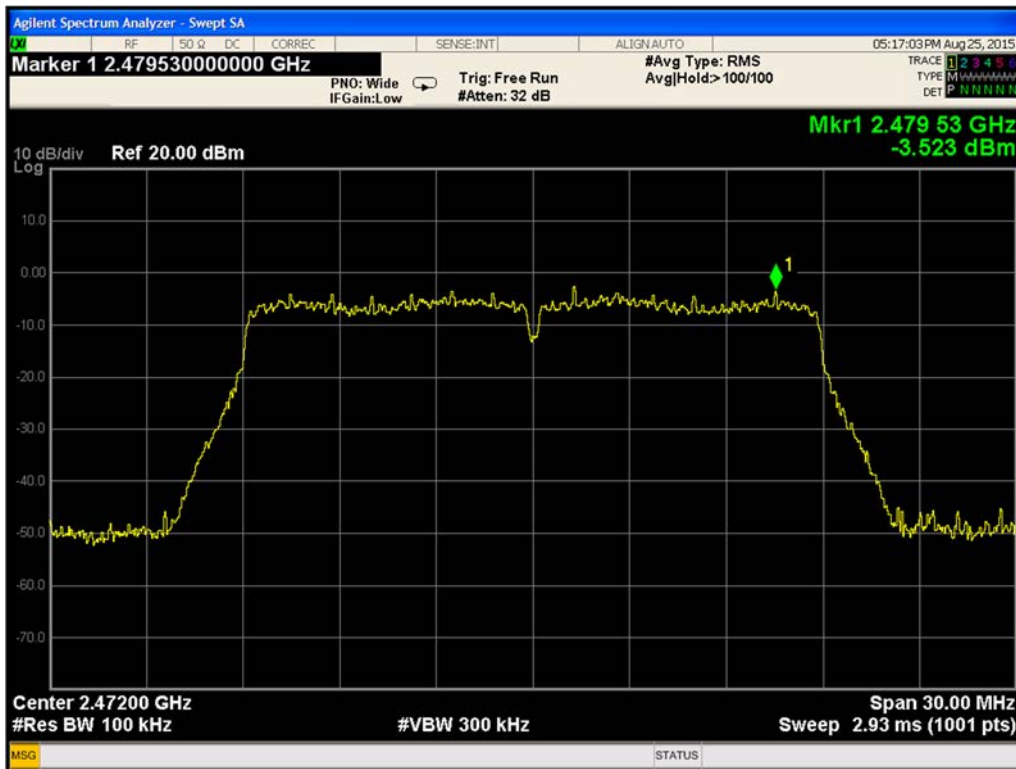
Plot 9-153. Reference Level Measurement 802.11g Path A Ch13



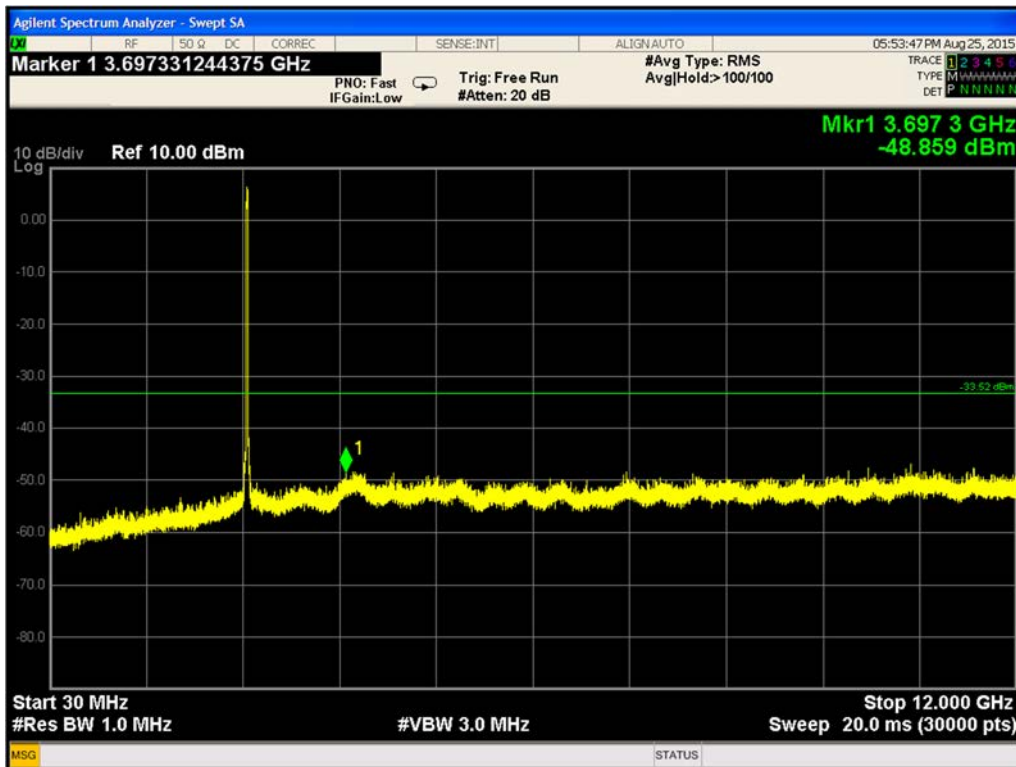
Plot 9-154. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path A CH13



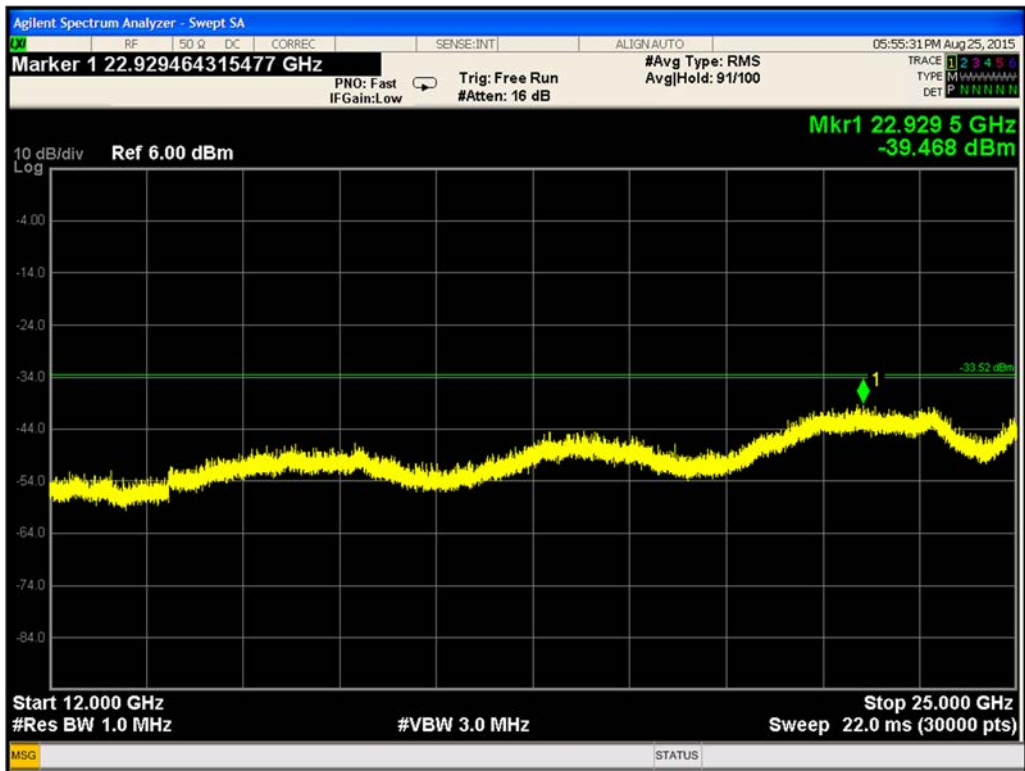
Plot 9-155. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path A CH13



Plot 9-156. Reference Level Measurement 802.11n Path A Ch13



Plot 9-157. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path A CH13

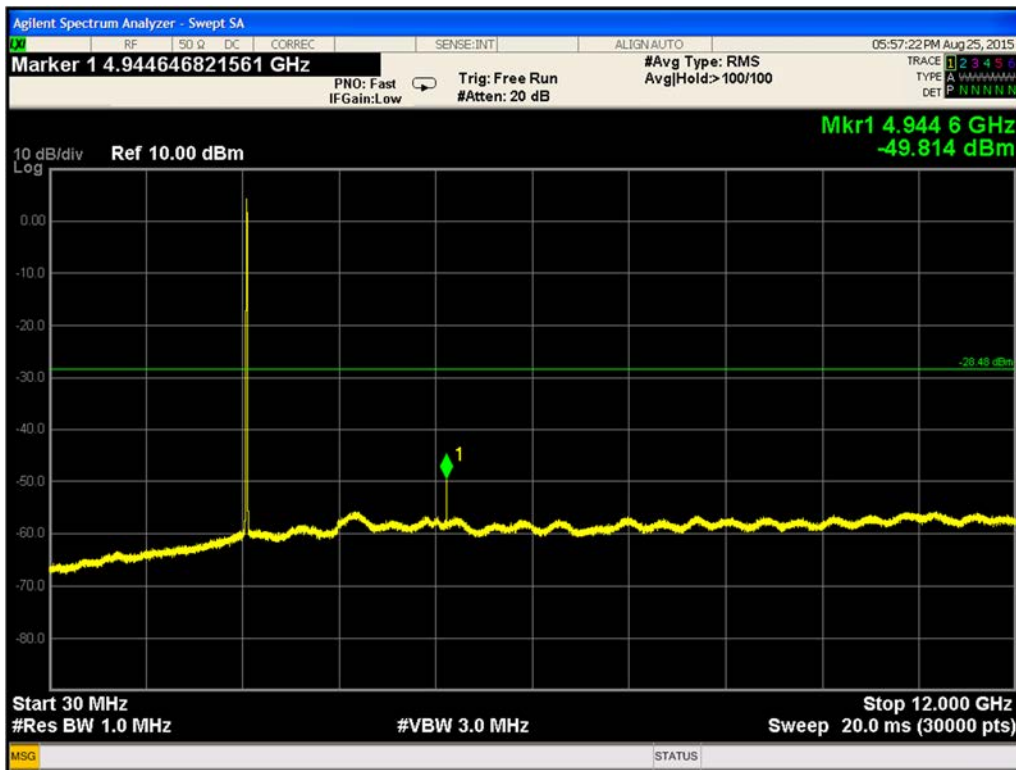


Plot 9-158. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path A CH13

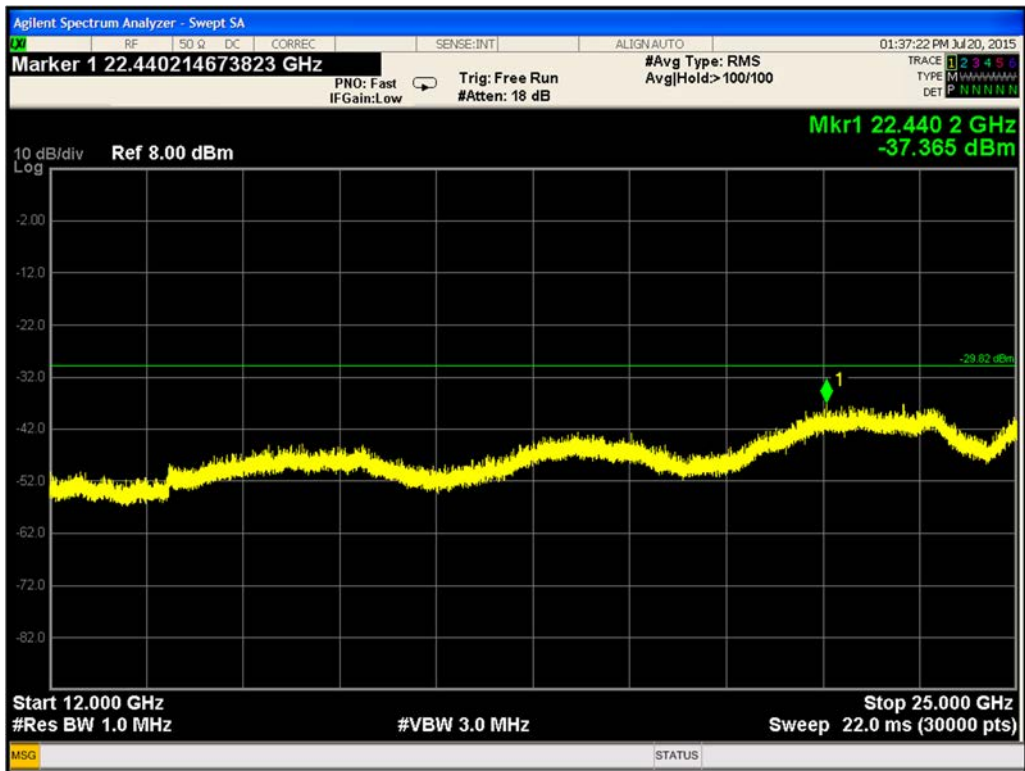




Plot 9-159. Reference Level Measurement 802.11b Path B Ch13



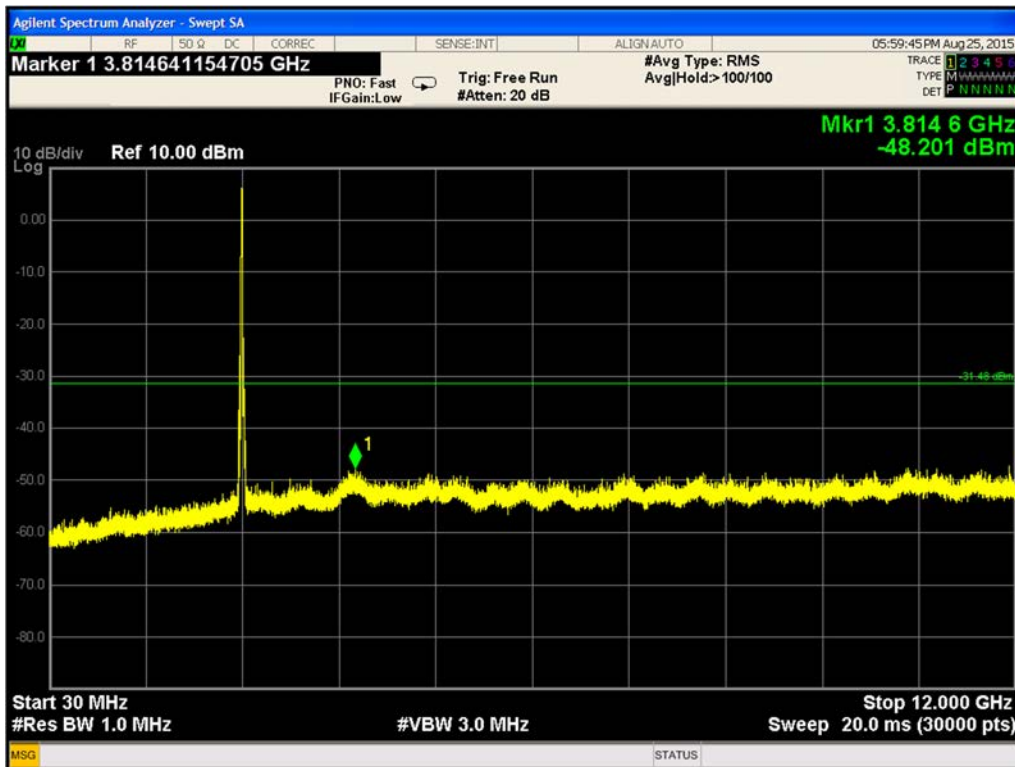
Plot 9-160. Conducted Spurious Emissions 802.11b 30MHz – 12 GHz Path B CH13



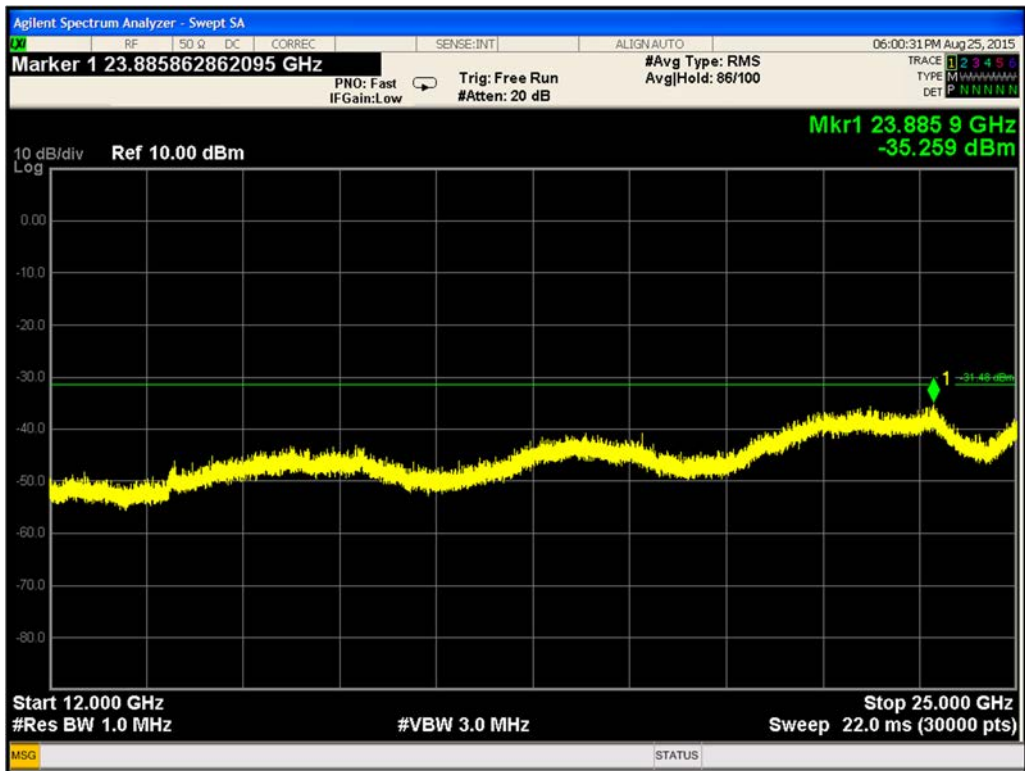
Plot 9-161. Conducted Spurious Emissions 802.11b 12GHz – 25 GHz Path B CH13



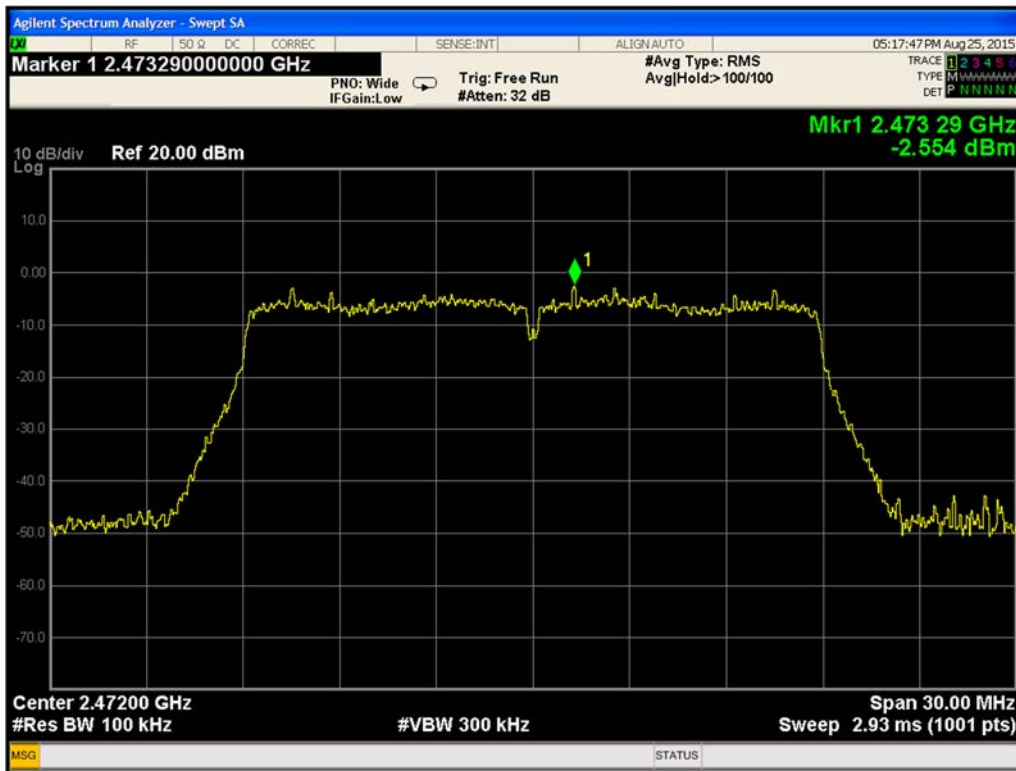
Plot 9-162. Reference Level Measurement 802.11g Path B Ch13



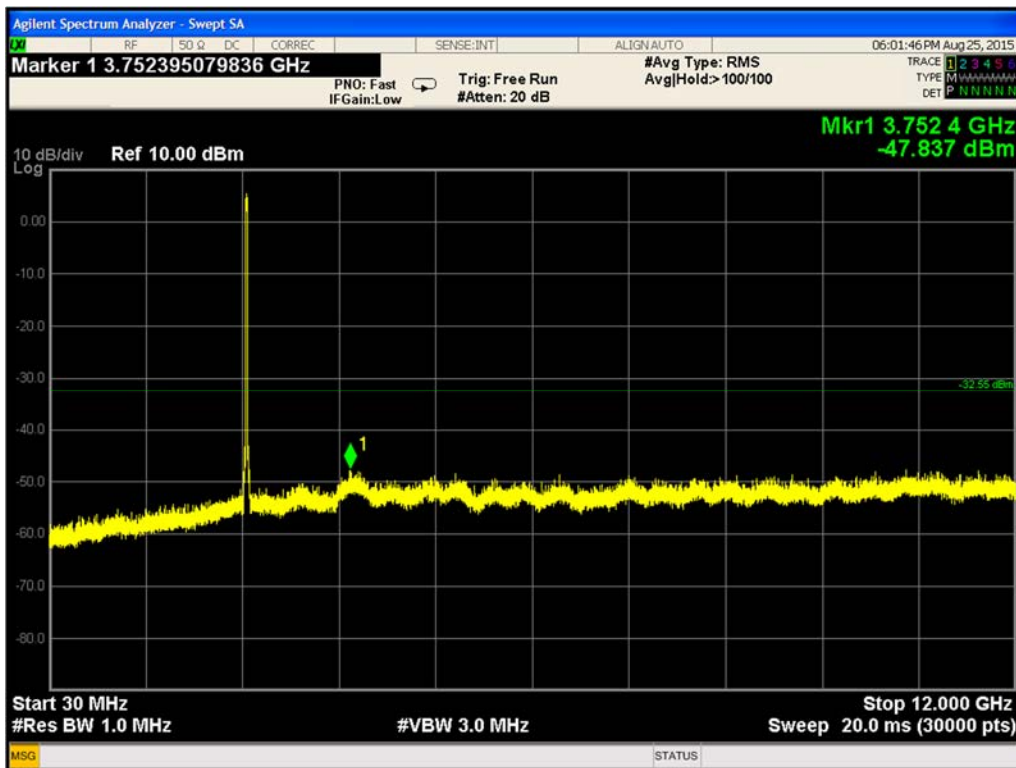
Plot 9-163. Conducted Spurious Emissions 802.11g 30MHz – 12 GHz Path B CH13



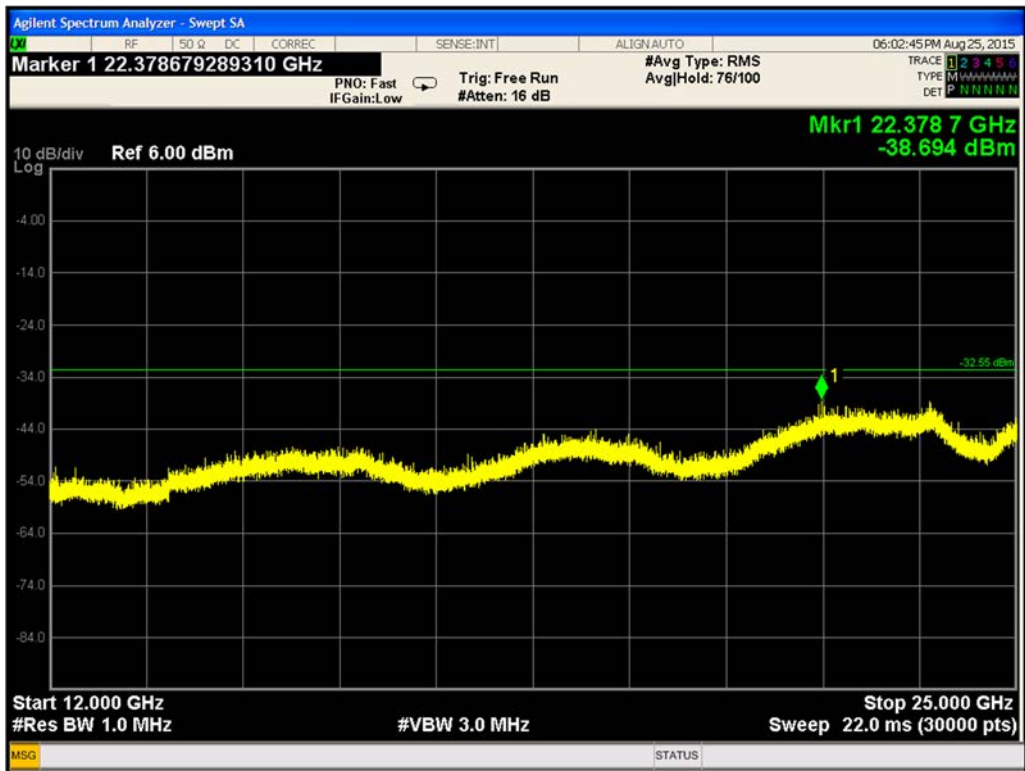
Plot 9-164. Conducted Spurious Emissions 802.11g 12GHz – 25 GHz Path B CH13



Plot 9-165. Reference Level Measurement 802.11n Path B Ch13



Plot 9-166. Conducted Spurious Emissions 802.11n 30MHz – 12 GHz Path B CH13



Plot 9-167. Conducted Spurious Emissions 802.11n 12GHz – 25 GHz Path B CH13