



November 19, 2012

DFS Expedite Request

Applicant: Xirrus

FCC ID: SK6-XR1000H

<p>Previously Granted: SK6XI-N450 in the XR4000 host (4/8 radio host system), XR6000, XR1000 and XR2000 systems</p>	<p>New device: SK6-XR1000H which uses two modified SK6XI-N450 modules in an outdoor hosts system.</p>
<p>Technology: 802.11abgn, 3x3 radio, supports 20 and 40 MHz bandwidths</p>	<p>Unchanged</p>
<p>Bandwidths: 20 and 40MHz</p>	<p>Unchanged</p>
<p>Antenna: Antenna structure is integral to the module</p>	<p>New higher gain external antennas</p> <p>Original antennas: 4dBi internal antennas</p> <p>New antennas:</p> <p>Terrawave, M6060060MO1D33607, three element, 2.4GHz - 4 dBi, 5GHz - 6dBi, Vertically polarized</p> <p>L-Com, HG2458-14DP-3NF, three element (two vertical/one horizontal), 2.4GHz - 14dBi, 5GHz - 14dBi.</p> <p>Note - the L-com antenna will be used with RF cabling. Minimum cable loss is 5dB for 2.4GHz, and 8dB for 5GHz.</p> <p>The lowest gain antenna in the DFS bands would be the Terrawave, @ 6dBi. This was used during the DFS testing performed.</p>
<p>Differences in DFS functioning, circuitry, software:</p>	<p>The original module was modified to allow for external antenna connections. The integrated antenna was removed and SMA connectors were added to allow connections to the external antennas.</p> <p><b><i>The radio module driver and radio function software has not changed. The DFS software is unchanged.</i></b></p>



NTS Silicon Valley  
www.nts.com

41089 Boyce Road  
Fremont, CA 94538

510-578-3500 Phone  
510-440-9525 Fax

Differences between products:	<b><i>The CPU board is exactly the same CPU used on the XR1000. The radio boards were modified as explained above to allow connection to a external antennas. The enclosure was completely redesigned and made from metal to survive in an outdoor environment.</i></b>
Original testing performed by Elliott Labs	New device tested by Elliott labs

Sincerely,

Mark E. Hill  
Staff Engineer, NTS Silicon Valley