

## MULTI-LANE RF FEATURED ON THE UNIFI AP OUTDOOR+

- Increases 2.4 GHz Wireless Capacity and Throughput in High-Density Areas
- Optimizes Operating Channel
- Enhances Co-Location of Access Points

### Increases Capacity and Throughput in High-Density Areas

Wireless client devices in high-density areas experience significant interference and noise stemming from multiple Access Points (APs) using the same operating band. Typical APs use radios that are tightly integrated, low-cost, single-chip Complementary Metal-Oxide Semiconductor (CMOS) zero Intermediate Frequency (IF) radios, which exhibit both poor selectivity and poor adjacent channel rejection performance.

With the launch of the UniFi® AP Outdoor+, Ubiquiti Networks™ introduces our patented Multi-Lane™ RF technology, which isolates signals on the operating channel and rejects interference using specialized circuitry, the High-Selectivity Receiver (HSR).

Multi-Lane RF technology adds 30+ dB of adjacent channel rejection through the active filter design, so the UniFi AP Outdoor+ can achieve up to double or triple the performance of a typical AP in a high-density environment.

### Optimizes Operating Channel

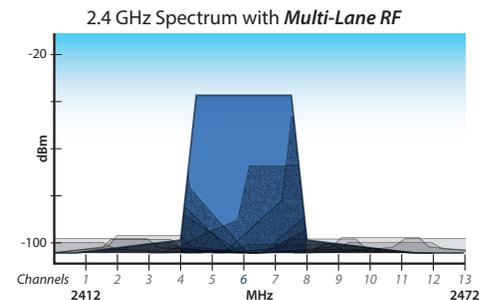
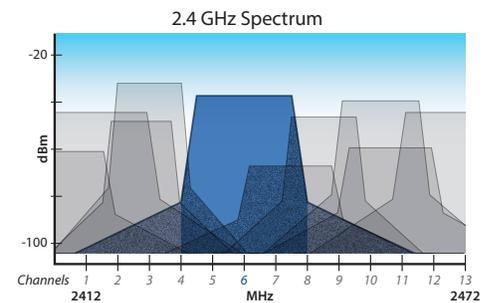
Although theoretically channels 1, 6, and 11 of the 2.4 GHz operating band shouldn't overlap, in practice there is cross-channel interference that affects receiver performance, especially in noisy, high-density environments. For example, with a typical AP operating on channel 6, it also hears RF from channels 1 and 11, because the typical AP has a generic filter that only filters out any non-2.4 GHz interference – all 2.4 GHz frequencies are still allowed in.

When the UniFi AP-Outdoor+ operates on channel 6, its Multi-Lane RF technology specifically eliminates non-channel 6 frequencies, creating a clean spectrum with minimal noise. Hence the UniFi AP-Outdoor+ has its own lane – channel 6 – for data traffic, even in a saturated environment.

### Enhances Co-Location of Access Points

With our innovative Multi-Lane RF technology, you have three separate channels (1, 6, and 11) available for superior capacity and throughput, so multiple APs in close proximity can operate at top speeds even though they all use the 2.4 GHz operating band.

Generic Filter versus  
Proprietary Filter of UniFi AP-Outdoor+



Operating Channel Other Transmissions and Noise Interference

Co-located UniFi AP-Outdoor+ Access Points

