802.11ac PHYSICAL LAYER FRAME FORMAT

**MCS INDEX** | **MODULATION** | **CODING** | **20 MHz** | **40 MHz** | **80 MHz** | **160 MHz**
--- | --- | --- | --- | --- | --- | ---
0 | 8PSK | 1/2 | 7.2 | 14.8 | 29.5 | 49.0
1 | OPSK | 1/2 | 14.4 | 29.5 | 59.0 | 98.0
2 | QPSK | 3/4 | 8.9 | 17.8 | 35.6 | 59.0
3 | 16-QAM | 3/4 | 20.8 | 41.6 | 83.2 | 134.0
4 | 16-QAM | 3/4 | 41.6 | 83.2 | 134.0 | 267.0
5 | 64-QAM | 3/4 | 57.8 | 115.5 | 231.0 | 385.0
6 | 64-QAM | 3/4 | 60.6 | 121.2 | 242.4 | 384.0
7 | 64-QAM | 3/4 | 72.6 | 145.2 | 290.3 | 480.0
8 | 256-QAM | 3/4 | 86.7 | 173.3 | 346.7 | 571.0
9 | 256-QAM | 3/4 | 96.3 | 192.5 | 385.0 | 646.7

**802.11ac WAVE 1**
- Single-user MIMO
- 3 Spatial Streams (3SS)
- 20/40/80 MHz channel
- 256-QAM modulation and coding
- Explicit transmit beamforming

**802.11ac WAVE 2**
- Multi-user MIMO
- 4 Spatial Streams (4SS)
- 20/40/80/160 MHz channel
- 256-QAM modulation and coding
- Explicit transmit beamforming

**HIGHLIGHTS**

**ENHANCED USER EXPERIENCE**

**MULTI-USER MIMO (MU-MIMO)**
MU-MIMO is one of the key features introduced with 802.11ac Wave 2. It allows simultaneous data transmission to multiple Wave 2 devices, enabling enterprises to increase network efficiency and device density of APs.

**802.11ac PHYSICAL LAYER FRAME**

**ARUBA ENHANCED CLIENTMATCH**
Aruba enhanced ClientMatch brings patented MU-MIMO awareness into the client steering algorithms. It groups MU-MIMO capable clients in an AP for simultaneous data transmission, improving network efficiency and creating a better user experience.