

Example Decision Matrix* for Wi-Fi 802.11ac			
		Decision	Notes
PHY Layer Decisions			
Pulse Shaping Method		OFDM with cyclic prefix	Reduces inter-symbol interference (ISI)
Modulation Scheme		BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	Adaptive modulation based on SNR
Error Detection		CRC (Cyclic Redundancy Check)	Used for error checking in MAC frames
Error Correction		Convolutional & LDPC codes	Forward error correction for robustness
Carrier Frequency		5 GHz	Higher frequency, less interference than 2.4 GHz
Full/Half Duplex		Half-Duplex	Uses CSMA/CA to avoid collisions
LINK Layer Decisions			
Framing		MAC Frame Format	Includes preamble, header, data, and FCS
Header Values		Frame Control, Duration/ID, Address Fields	Controls frame type and addressing
Error Handling		ARQ (Automatic Repeat ReQuest)	Retransmits on failed CRC check
Addressing		48-bit MAC Addresses	Unique device identification
Packet Length Constraints		Variable	Maximum MSDU size of 7,935 bytes
Handshake / Acknowledgement Process		ACK frames and & RTS/CTS	Avoids collisions, confirms delivery
MIXED Decisions			
Multiple Access Control		CSMA/CA	Carrier Sense + Random Backoff to avoid collisions
Synchronization & Framing		Preamble-based synch	Long and short preambles help receivers lock onto signals
MCS usage	Available Schemes	Listed in Modulation Schemes	Defines modulation and coding rate per channel conditions
	Indication of Scheme	MCS Index 0-9 based on rate adaptation	AP and client negotiate best MCS based on link quality

*Obviously yours will not be this detailed or complex. This just shows examples of what things you might put in each section