# 802.11 Wireshark Filters

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|---|---|
| Management Frames | `wlan.fc.type == 0` |
| Association Request | `wlan.fc.type_subtype == 0` |
| Association Response | `wlan.fc.type_subtype == 1` |
| Reassociation Request | `wlan.fc.type_subtype == 2` |
| Reassociation Response | `wlan.fc.type_subtype == 3` |
| Probe Request | `wlan.fc.type_subtype == 4` |
| Probe Response | `wlan.fc.type_subtype == 5` |
| Beacon | `wlan.fc.type_subtype == 8` |
| Disassociation | `wlan.fc.type_subtype == 10` |
| Authentication | `wlan.fc.type_subtype == 11` |
| Deauthentication | `wlan.fc.type_subtype == 12` |
| Action | `wlan.fc.type_subtype == 13` |

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|---|---|
| Control Frames | `wlan.fc.type == 1` |
| Block ACK Request | `wlan.fc.type_subtype == 24` |
| Block ACK | `wlan.fc.type_subtype == 25` |
| PS-Poll | `wlan.fc.type_subtype == 26` |
| Ready To Send (RTS) | `wlan.fc.type_subtype == 27` |
| Clear to Send (CTS) | `wlan.fc.type_subtype == 28` |
| ACK | `wlan.fc.type_subtype == 29` |

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|---|---|
| Data Frames | `wlan.fc.type == 2` |
| Data | `wlan.fc.type_subtype == 32` |
| Null | `wlan.fc.type_subtype == 36` |
| QoS Data | `wlan.fc.type_subtype == 40` |
| QoS Null | `wlan.fc.type_subtype == 44` |

| Display Filter Operators | | |
|---|---|---|
| Equal | `==` | `eq` |
| Not Equal | `!=` | `ne` |
| And | `&&` | `and` |
| Or | `\|\|` | `or` |
| Xor | `^^` | `xor` |
| Not | `!` | `not` |
| Contains | `wlan.xxx contains "xx:xx"` | |

| Addresses | |
|---|---|
| MAC address | `wlan.addr == MAC_address` |
| Transmitter Address (TA) | `wlan.ta == MAC_address` |
| Receiver Address (RA) | `wlan.ra == MAC_address` |
| Source Address (SA) | `wlan.sa == MAC_address` |
| Destination Address (DA) | `wlan.da == MAC_address` |

| Access Points and SSIDs | |
|---|---|
| BSSID | `wlan.bssid == AP_radio_MAC_address` |
| SSID | `wlan_mgt.ssid == SSID` |

| Radio Tap Header | |
|---|---|
| Specific Channel | `radiotap.channel.freq == frequency` |
| Specific Data Rate | `radiotap.datarate == rate_in_Mbps` |
| RSSI | `radiotap.dbm_antsignal == rate_in_dBm` |

| 802.11k,v,r | |
|---|---|
| 802.11v DMS request | `wlan.fixed.action_code == 23` |
| 802.11v DMS response | `wlan.fixed.action_code == 24` |
| 802.11k Neighbor request | `wlan.rm.action_code == 4` |
| 802.11k Neighbor response | `wlan.rm.action_code == 5` |
| 802.11r FT auth req | `(wlan.fc.type_subtype==0) && (wlan.rsn.akms.type == 3)` |
| 802.11r FT auth res | `(wlan.fc.type_subtype==1) && (wlan.tag.number == 55)` |
| 802.11r FT reassoc req | `(wlan.fc.type_subtype==2) && (wlan.tag.number == 55)` |
| 802.11r FT reassoc res | `(wlan.fc.type_subtype==3) && (wlan.tag.number == 55)` |

| Retries | |
|---|---|
| Retry | `wlan.fc.retry==1` |

| Weak Signal and Probes | |
|---|---|
| Weak Signal | `wlan_radio.signal_dbm < -dB` |
| Weak Probe responses | `wlan.fc.type_subtype == 5 && wlan_radio.signal_dbm < -dB` |
| Weak Probe requests | `wlan.fc.type_subtype == 4 && wlan_radio.signal_dbm < -dB` |

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|---|---|
| 4-Way Handshake Filter | `wlan.addr == MAC && eapol` |