IRF Compatibility for HPE Networking Switches (May 2022) – v3.7

Switch Series	Maximum devices in IRF domain	IRF link capacity	Max Physical Ports per IRF-Port	Notes	Number of active links per agg. group	Number of agg. groups
12900E	2	Must use 10/40/100GbE links	8	Only works within 12900E switch series.	Up to 64	Up to 1024 (2048 links maximum)
10500	4	Must use 10/40GbE links	8	Only works within 10500 switch series.	Up to 32	256
7500	4 (7503, 7506) 2 (7510, 7503-S) (IRF functionality is not supported on HPE 7502 Switch Chassis)	Must use 10/40GbE links	8	Only works within 7500 switch series. Only switches of the same models can form an IRF. IRF is not supported on the 7510 if they are using the HPE 7500 384Gbps Fabric/Advanced Main Processing Unit (JD195A).	Up to 32	128
5980	4	Must use 10/100GbE links	16	Only works within 5980 switch series.	Up to 32	Up to 256
5945	10	Must use 40/100GbE links	8	Only works within 5945 switch series.	Up to 32	Up to 1K
5944	10	Must use 40/100GbE links	6	Only works within 5944 switch series.	Up to 32	Up to 1K
5940	9	Must use 10/40/100GbE links	8	Only works within 5940 switch series.	Up to 32	1K
5901AF	9	Must use 10/40GbE links	8	Only works within 5901 switch series.	Up to 32	128
5900AF	9	Must use 10/40GbE links	8	Only works within 5900/5920 switch series.	Up to 32	128
5710	10	Must use 10/40/100GbE links	8	Only works within 5710 switch series.	Up to 32	1K
5520 HI	9	Must use 10/40GbE links	1x40GbE 3x10GbE	Only works within 5520 HI switch series.	Up to 8	With IRF = 128 Without IRF = 24
5140 HI	9	Must use 10/40GbE links	1x40GbE 3x10GbE	Only works within 5140 HI switch series.	Up to 8	With IRF = 128 Without IRF = 24
5140 EI	9	Must use 10GbE links	3x10GbE	Only works within 5140 EI switch series.	Up to 8	With IRF = 128 Without IRF = 24
5130 HI	9	Must use 10GbE links	3x10GbE	Only works within 5130 HI switch series.	Up to 8	With IRF = 128 Without IRF = 24
5130 EI	9	Must use 10GbE links	4	Only works within 5130 EI switch series.	Up to 8	With IRF = 128 Without IRF = 24

PRE-EOS / EOS Products						
12500	4	Must use 10/40GbE links	12	Only works within 12500 switch series.	Up to 12	240
11900	4	Must use 10GbE/40GbE links	8	Only works within 11900 switch series.	Up to 16 (# of ports X # LAG groups should be <2K)	Up to 1024 (2048 links maximum)
9500	4	Must use 10GbE links	8	Only works within 9500 switch series.	Up to 12	240
7900	2	Must use 10/40/100GbE links	8	Only works within 7900 switch series.	Up to 16	Up to 1024 (2048 links maximum)
5950	9	Must use 25/40/100GbE links	8	Only works within 5950 switch series.	Up to 32	Up to 256
5930AF	9	Must use 10/40GbE links	8	Only works within 5930 switch series.	Up to 32	512
5920AF	9	Must use 10GbE links	8 (R2311) 4 (before R2311)	Only works within 5900/5920 switch series.	Up to 32	128
5830AF	4	Must use 10GbE links	8 – 5830AF-96G 4 – 5830AF-48G	IRF works with 5830AF-48G and 5830-96G switches when using code CMW520-R1115 and above. When using code prior to CMW520-R1115, 5830AF-48G switches can only IRF with 5830AF-48G switches and 5830AF-96G switches can only IRF with 5830AF-96G switches.	Up to 8	128
5800/5820	9	Must use 10GbE links	4	Only works within 5800/5820 switch series. When 5800 and 5820 are mixed stacking, it is recommended to set 5820 as the Master and make sure the same software version is running on all switches.	Up to 8	128
5700	9	Must use 10/40GbE links	8	Only works within 5700 switch series.	Up to 16 or 4x40GbE	128 (eIRF systems = 1K LAGs with max 2K ports total)
5510 HI	9	Must use 10/40GbE links	1x40GbE 3x10GbE	Only works within 5510 HI switch series.	Up to 8	With IRF = 128 Without IRF = 24
5500 HI	9	Must use 10GbE links	3	Only works within 5500 HI switch series.	Up to 8	128
5500 EI	9	Must use 10GbE links	2	Only works within 5500 EI switch series.	Up to 8	With IRF = 128 with IRF Without IRF = 26 for 48-port models or 14 for 24-port models
5500 SI	4	Must use 10GbE links	2	Only works within 5500 SI switch series.	Up to 8	With IRF = 128 Without IRF = 26 for 48-port models or 14 for 24-port models
5120 EI	4	Must use 10GbE links	2	Only works within 5120 EI switch series.	Up to 8GbE or 4x10GbE	26 for 48-port models / 14 for 24-port models

5120 SI	4	Must use GbE uplink ports	2	Only works within 5120 SI switch series.	Up to 8	26 for 48-port models / 14 for 24-port models / 10 for 16-port models
3610	16	Must use GbE uplink ports	2	Only works within 3610 switch series. Supports IRF lite.	Up to 8FE or 4GbE	26 for 48-port models / 14 for all other models
3600 EI v2	9	Must use GbE uplink ports	2	Only works within 3600 EI v2 switch series.	Up to 8	128
3600 EI	8	Must use GbE uplink ports	2	Only works within 3600 EI switch series.	Up to 8FE or 4GbE	With IRF = 8 Without IRF = 2
3600 SI v2	9 (16 for JG315A when using IRF lite)	Must use GbE uplink ports	2	Only works within 3600 SI v2 switch series - JG315A also supports IRF lite	Up to 8	128
3600 SI	8	Must use GbE uplink ports	2	Only works within 3600 SI switch series. Supports IRF lite.	Up to 8FE or 4GbE	With IRF = 8 Without IRF = 2
3100 EI v2	16	Must use GbE uplink ports	2 – 8TP 4 – 16TP & 26TP	Only works within 3100 EI v2 switch series. Supports IRF lite.	Up to 8FE or 8GbE	4 for 8p models / 9 for 16p models / 13 for 24p models
3100 SI v2	16	Must use GbE uplink ports	2 – 8TP 4 – 16TP & 26TP	Only works within 3100 SI v2 switch series. Supports IRF lite.	Up to 8FE or 8GbE	4 for 8p models / 9 for 16p models / 13 for 24p models

IRF enables support for DDM, DRR, and DLA. 'IRF lite' means only DDM is supported:

DDM (distributed device management): As seen from outside, the whole Fabric is a single equipment. It allows users to manage the Fabric through diverse modes: CONSOLE, SNMP, TELNET, WEB, etc.

DRR (distributed resilient routing): For users, various devices of a fabric appear as a single layer 3 switch. The whole Fabric will, as single equipment, perform routing function and forwarding function between layer 2 and layer 3. Unicast Routing Protocol and Multicast Routing Protocol run in distributed mode and support hot backup; when there is fault in a certain device, routing protocols and data forwarding can continue.

DLA (distributed link aggregation): it supports cross-device link aggregation, capable of link load balancing and mutual backup among devices.