APPENDIX A

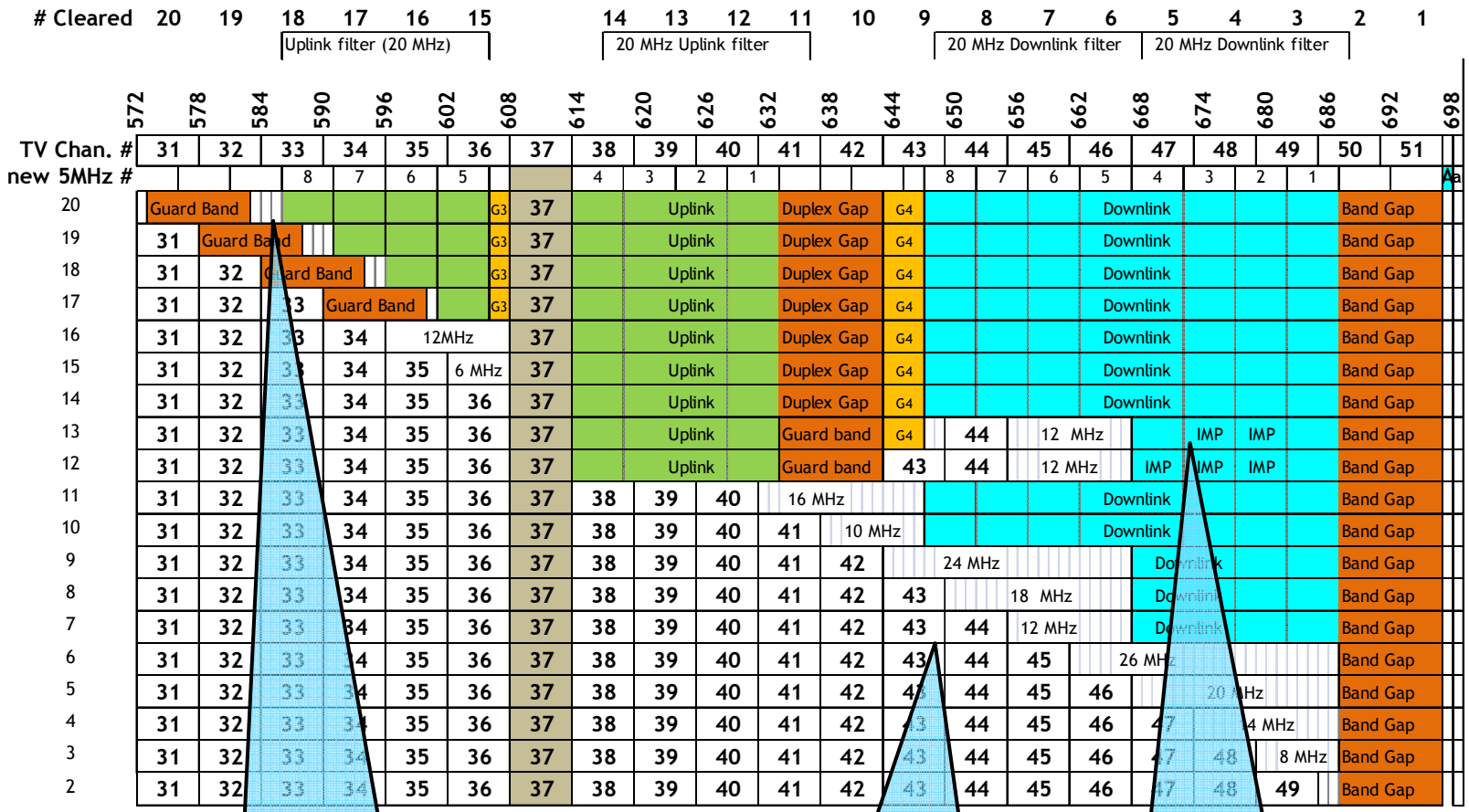
BAND PLAN VARIATIONS

GN DOCKET NO. 12-268

ALCATEL-LUCENT
JUNE 14, 2013

Alcatel·Lucent

Down from 51 Reversed with 8 DL carriers



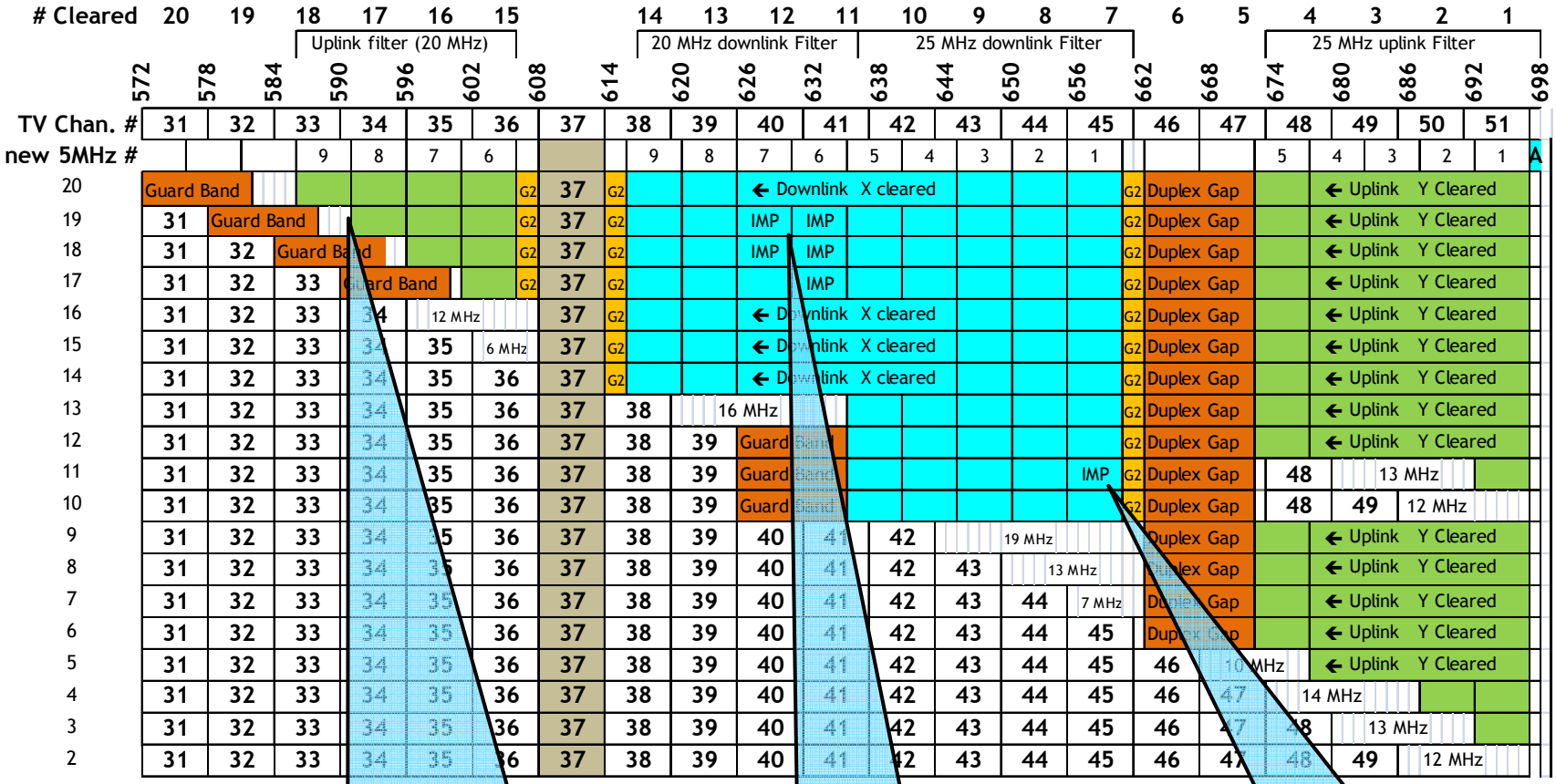
Base station uplink filters may be market dependant, so TV stations may encroach on uplink channels with a 10 MHz guard.
UE to TV interference may be the limiting factor.

TV Channel 42 and 45 block the downlinks when within 10 MHz of the UE downlink filters.

IMP caused by TV43 and 44 with UL1-4 may desensitize the same UE. This is attenuated by filters and constrained TV strength.

Alcatel·Lucent

“Exemplary” FDD Band Plan with 10 MHz Duplex Gap and 25 MHz top uplink



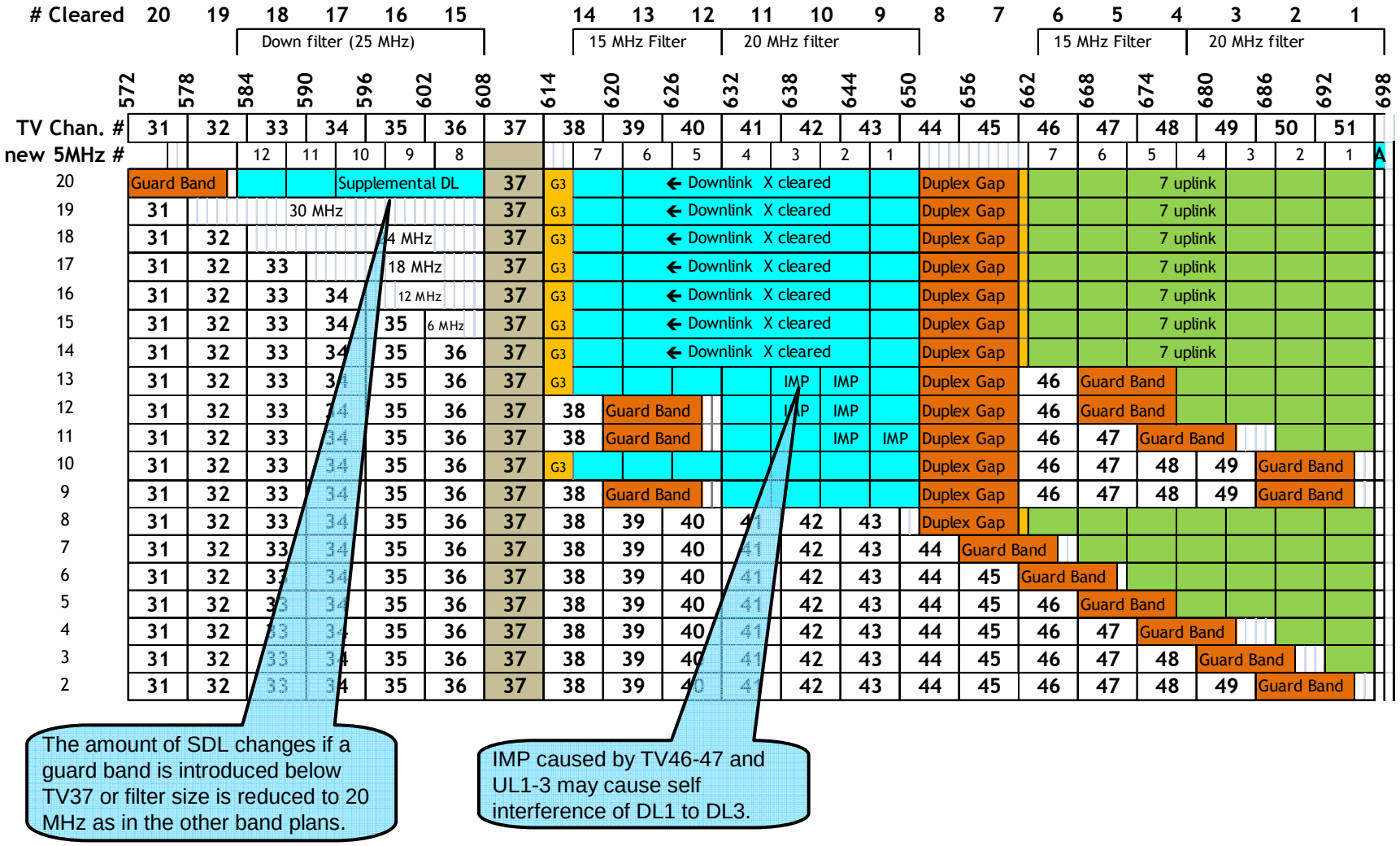
TV31and above would block UE downlink operations below Ch. 37, but would not block uplinks since base station uplink filters can be market dependent. UE transmitters at UL6-9 might cause TV31-33 receiver desensitization.

Uplinks 6 and 7 mix with TV31-33, potentially introducing self interference in these downlink blocks.

IMP caused by TV48 and UL1 may cause self interference of DL1.

Alcatel·Lucent

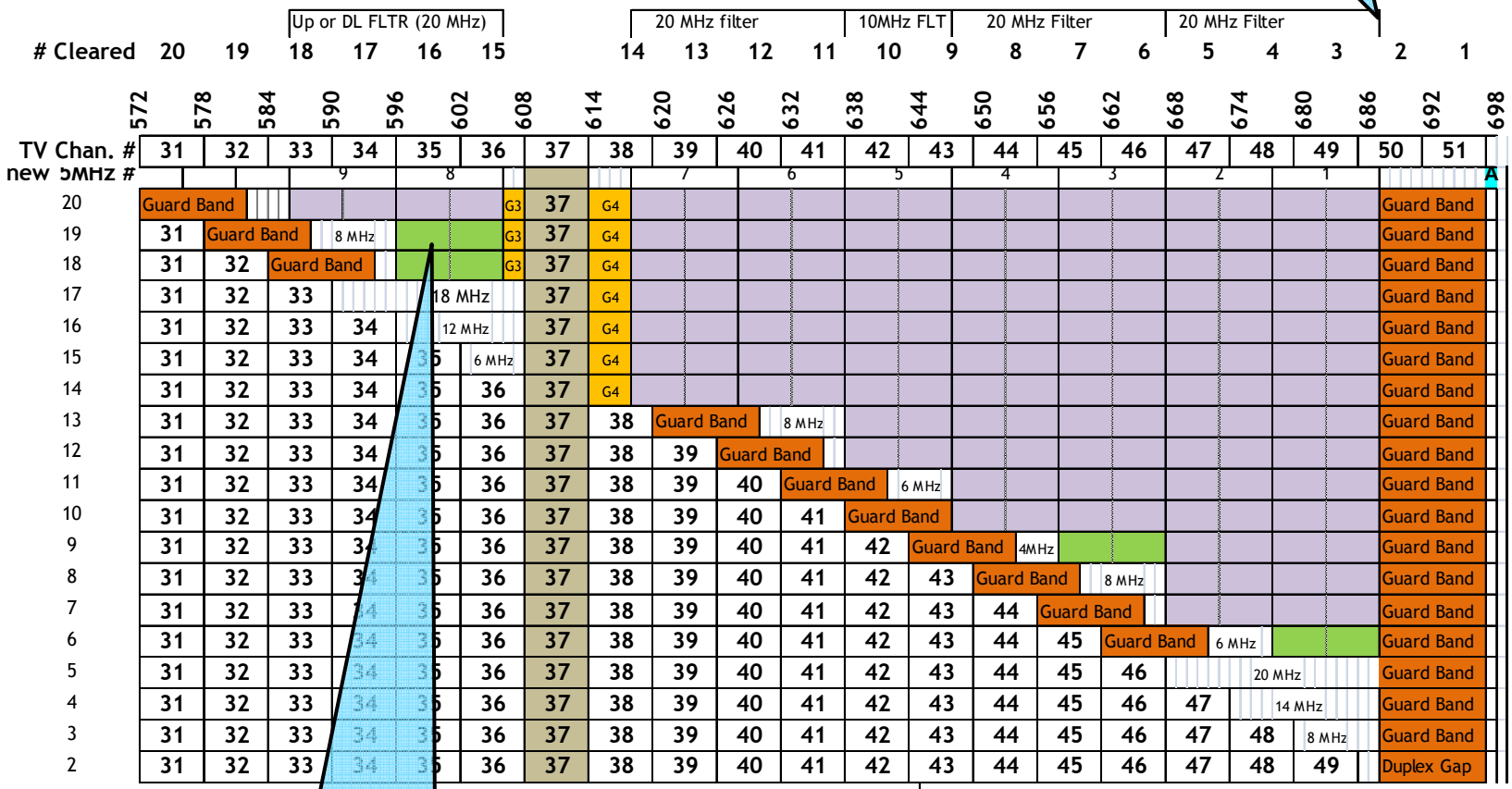
35 + 35 MHz FDD plan with Supplemental Downlink



Alcatel·Lucent

TDD Band Plan with 10 MHz carriers

Five Filters with bandwidths reduced to contain 10 MHz blocks.



TV Channels block downlink operations in certain instances reducing these carriers to uplink transmissions only (in TDD frames).

Alcatel·Lucent

Summary Performance

MHz	# of Cleared TV Channels	Down from 51 Reversed		"Exemplary" Band Plan		35 MHz + 35 MHz + SDL Band Plan		10MHz TDD "Clean" Carriers
		Pairs	SDL	Pairs	SDL	pairs	SDL	10MHzs
120	20	8	0	9	0	7	5	9
114	19	7	1	8	1	7	0	7
108	18	6	2	7	2	7	0	7
102	17	5	3	6	3	7	0	7
96	16	4	4	5	4	7	0	7
90	15	4	4	5	4	7	0	7
84	14	4	4	5	4	7	0	7
78	13	4	0	5	0	4	3	5
72	12	4	0	5	0	4	0	5
66	11	0	8	1	4	2	2	4
60	10	0	8	0	5	0	7	4
54	9	0	4	0	0	0	4	2
48	8	0	4	0	0	0	0	2
42	7	0	4	0	0	0	0	2
36	6	0	0	0	0	0	0	0
30	5	0	0	0	0	0	0	0
24	4	0	0	0	0	0	0	0
18	3	0	0	0	0	0	0	0
12	2	0	0	0	0	0	0	0

Alcatel·Lucent