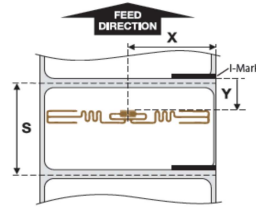


# CL4NX UHF Inlay Configuration Guide

SATO recommends print speeds of 4 IPS or less for best results with RFID. The following recommendations have been tested successfully at SATO. Results may vary in the actual customer installation due to overall system tolerances. Validation of functionality in the actual system is therefore recommended.



- Global** Placement and Configurations globally valid with minor variation.
- ETSI** Placement and Configurations valid for European (ETSI) frequency range, 865-868MHz
- FCC** Valid for Frequencies that fall within the FCC range, 902-928MHz
- NG** NG

Inray Measurements:

- X: Liner Edge to Center of Chip
- Y: rear of Imark(Imark sensor or front oflabel (gas sensor)to front of inray
- S: Minimum Inlay separation

Region	Manufacturer	Inlay	IC Chip	Feed Orientation [IC Direction]	Position(mm)			Power (dBm)			(Y=) Standard Antenna Position (mm)								
					X	Y	S	Write	Read	Antenna Selection	Blue		Yellow		Green				
Global	Alien Technology	ALN-9640 "Squiggle"	Alien Higgs3		47.5 to 57	3 to 5	21	24	14	Short	-	to	-	-	to	-			
Global	Alien Technology	ALN-9640 "Squiggle"	Alien Higgs3		47.5 to 57	18 to 36	33	16	7	Standard	18	to	23	24	to	29	30	to	36
Global	Alien Technology	ALN-9662 "Short"	Alien Higgs3		35 to 45	0 to 5	23	24	18	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9662 "Short"	Alien Higgs3		35 to 65	10 to 24	50	24	16	Standard	10	to	14	15	to	20	21	to	24
FCC	Alien Technology	ALN-9762 "Short"	Alien Higgs4		50 to 60	0 to 5	20	24	13	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9762 "Short"	Alien Higgs4		50 to 60	15 to 22	43	24	10	Standard	15	to	18	19	to	22	-	to	-
ETSI	Alien Technology	ALN-9762 "Short"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9762 "Short"	Alien Higgs4		42 to 58	16 to 32	35	24	17	Standard	16	to	21	22	to	27	28	to	32
ETSI	Alien Technology	ALN-9610 "Squig"	Alien Higgs3		26 to 45	1 to 4	33	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9610 "Squig"	Alien Higgs3		39 to 45	18 to 30	41	24	18	Standard	18	to	22	23	to	26	27	to	30
FCC	Alien Technology	ALN-9710 "Squig"	Alien Higgs4		22.5 to 62	3 to 6	21	24	15	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9710 "Squig"	Alien Higgs4		22.5 to 37	14 to 28	80	23	20	Standard	14	to	18	19	to	24	25	to	28
ETSI	Alien Technology	ALN-9710 "Squig"	Alien Higgs4		26 to 45	2 to 5	33	24	23	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9710 "Squig"	Alien Higgs4		39 to 45	18 to 30	43	24	24	Standard	18	to	21	22	to	25	26	to	30
FCC	Alien Technology	ALN-9720 "HiScan"	Alien Higgs4		19.5 to 59	0 to 3	31	24	18	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9720 "HiScan"	Alien Higgs4		34.5 to 59	14 to 32	80	24	17	Standard	14	to	17	18	to	24	25	to	32
ETSI	Alien Technology	ALN-9720 "HiScan"	Alien Higgs4		23 to 42	0 to 2	29	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9720 "HiScan"	Alien Higgs4		31 to 42	14 to 32	45	24	23	Standard	14	to	20	21	to	26	27	to	32
Global	Alien Technology	ALN-9654 "G Tag"	Alien Higgs3		46.5 to 56.5	1 to 10	25	20	17	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9654 "G Tag"	Alien Higgs3		46.5 to 61.5	14 to 30	58	14	10	Standard	14	to	18	19	to	24	25	to	30
FCC	Alien Technology	ALN-9728 "Garment Tag"	Alien Higgs4		22.5 to 37.5	0 to 5	36	23	15	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9728 "Garment Tag"	Alien Higgs4		22.5 to 62.5	6 to 19	105	24	18	Standard	6	to	9	10	to	14	15	to	19
ETSI	Alien Technology	ALN-9728 "Garment Tag"	Alien Higgs4		26.5 to 35.5	0 to 5	35	24	17	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9728 "Garment Tag"	Alien Higgs4		39.5 to 45.5	18 to 36	43	24	15	Standard	18	to	24	25	to	30	31	to	36
FCC	Alien Technology	ALN-9728-90 "Garment Tag"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9728-90 "Garment Tag"	Alien Higgs4		15 to 35	24 to 37	85	18	10	Standard	-	to	-	24	to	30	31	to	37
ETSI	Alien Technology	ALN-9728-90 "Garment Tag"	Alien Higgs4		19 to 28	7 to 10	61	20	15	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9728-90 "Garment Tag"	Alien Higgs4		19 to 33	22 to 45	75	20	13	Standard	22	to	30	31	to	38	39	to	45
FCC	Alien Technology	ALN-9730 "Squiglette"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9730 "Squiglette"	Alien Higgs4		55 to 55	17 to 24	26	24	11	Standard	17	to	20	21	to	24	-	to	-
ETSI	Alien Technology	ALN-9730 "Squiglette"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9730 "Squiglette"	Alien Higgs4		52 to 58	21 to 26	27	24	13	Standard	21	to	23	24	to	26	-	to	-
Global	Alien Technology	ALN-9630 "Squiglette"	Alien Higgs3		40 to 55	0 to 4	22	24	16	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9630 "Squiglette"	Alien Higgs3		40 to 70	15 to 33	59	24	17	Standard	15	to	23	24	to	28	29	to	33
FCC	Alien Technology	ALN-9874-WRW "Tread"	Alien HiggsSEC		44 to 53	3 to 8	53	20	20	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9874-WRW "Tread"	Alien HiggsSEC		44 to 58	2 to 7	49	10	10	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9827-WRW "GT-L"	Alien HiggsSEC		29 to 43	2 to 4	39	21	21	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9827-WRW "GT-L"	Alien HiggsSEC		29 to 43	2 to 7	69	18	15	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9830-WRW "Squiglette"	Alien HiggsSEC		39 to 53	2 to 5	29	20	20	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9830-WRW "Squiglette"	Alien HiggsSEC		39 to 53	17 to 22	54	17	17	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9835-WRW "Express"	Alien HiggsSEC		39 to 53	2 to 3	27	20	20	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9835-WRW "Express"	Alien HiggsSEC		39 to 53	16 to 21	41	14	14	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9840-WRW "Squiggle"	Alien HiggsSEC		51.4 to 60.4	2 to 6	20	23	21	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9840-WRW "Squiggle"	Alien HiggsSEC		51.4 to 60.4	21 to 26	23	9	9	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9841-WRW "Doc"	Alien HiggsSEC		NG	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9841-WRW "Doc"	Alien HiggsSEC		51.5 to 60.5	21 to 26	23	14	14	Standard	16	to	21	-	to	-	-	to	-
FCC	Alien Technology	ALN-9862-WRW "Short"	Alien HiggsSEC		39 to 53	2 to 6	42	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9862-WRW "Short"	Alien HiggsSEC		39 to 53	14 to 19	36	14	14	Standard	16	to	21	-	to	-	-	to	-
Global	Alien Technology	ALN-9662-FWRWA"Short"	Alien Higgs3		/	/	/	/	/	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9662-FWRWA"Short"	Alien Higgs3		42 to 48	16 to 39	40	24	16	Standard	16	to	23	24	to	31	32	to	39
NG	Alien Technology	ALN-9634-FWRW	Alien Higgs3		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9634-FWRW	Alien Higgs3		28 to 37	25 to 29	75	24	16	Standard	25	to	29	-	to	-	-	to	-
NG	Alien Technology	ALN-9634-FWRW	Alien Higgs3		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9634-FWRW	Alien Higgs3		28 to 37	25 to 29	75	24	18	Standard	25	to	29	-	to	-	-	to	-
FCC	Alien Technology	ALN-9714-WRW "Bio"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9714-WRW "Bio"	Alien Higgs4		7.5 to 21.5	26 to 33	34	24	24	Standard	26	to	29	30	to	33	-	to	-
FCC	Alien Technology	ALN-9716-WRW "Pearl"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9716-WRW "Pearl"	Alien Higgs4		38 to 49	17 to 31	34	24	24	Standard	17	to	21	22	to	26	27	to	31
FCC	Alien Technology	ALN-9741-WRW "Doc"	Alien Higgs4		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9741-WRW "Doc"	Alien Higgs4		51.5 to 60.5	24 to 38	27	17	17	Standard	24	to	28	29	to	33	34	to	38
FCC	Alien Technology	ALN-9745-WRW "SlimLine"	Alien Higgs4		51 to 60	12 to 15	21	20	20	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9745-WRW "SlimLine"	Alien Higgs4		51 to 60	25 to 39	28	9	9	Standard	25	to	29	30	to	34	35	to	39
FCC	Alien Technology	ALN-9768-WRW "Wonder Dog"	Alien Higgs4		65 to 66	7 to 10	31	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9768-WRW "Wonder Dog"	Alien Higgs4		47 to 66	18 to 32	61	12	12	Standard	18	to	22	23	to	27	28	to	32
FCC	Alien Technology	ALN-9770-WRW "Bat"	Alien Higgs4		45.25 to 59.25	4 to 7	37	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9770-WRW "Bat"	Alien Higgs4		45.25 to 64.25	10 to 24	54	20	20	Standard	10	to	14	15	to	19	20	to	24
FCC	Alien Technology	ALN-9816-WRW "Pearl"	Alien HiggsSEC		-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9816-WRW "Pearl"	Alien HiggsSEC		38 to 49	17 to 31	34	22	22	Standard	17	to	21	22	to	26	27	to	31
FCC	Alien Technology	ALN-9954-WRW "G"																	

Region	Manufacturer	Inlay	IC Chip	Feed Orientation [IC Direction]	Position (mm)			Power (dBm)			(Y=) Standard Antenna Position [mm]								
					X	Y	S	Write	Read	Antenna Selection	Blue		Yellow		Green				
FCC	Alien Technology	ALN-9828-WRW "GT"	Alien HiggsEC	[IC Facing Up]	28 to 47	9 to 11	47	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9828-WRW "GT"	Alien HiggsEC	[IC Facing Up]	36 to 47	15 to 29	53	17	17	Standard	15	to	19	20	to	24	25	to	29
FCC	Alien Technology	ALN-9825-WRW "Gecko"	Alien HiggsEC	[IC Facing Up]	18.5 to 37.5	10 to 12	29	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9825-WRW "Gecko"	Alien HiggsEC	[IC Facing Up]	31.5 to 37.5	15 to 29	34	19	19	Standard	15	to	19	20	to	24	25	to	29
ETSI	Alien Technology	ALN-9740 "Squiggle"	Alien Higgs4	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9740 "Squiggle"	Alien Higgs4	[IC Facing Up]	51.5 to 55	20 to 34	31	24	15	Standard	20	to	24	25	to	29	30	to	34
Global	Alien Technology	ALN-9728-35WRW P33xW53 Label	Alien Higgs4	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9728-35WRW P33xW53 Label	Alien Higgs4	[IC Facing Up]	26 to 26	1.5 to 1.5	35	24	16	Standard	1.5	to	1.5	to	-	-	-	to	-
Global	Alien Technology	ALN-9728-WRW P33xW53 Label	Alien Higgs4	[IC Facing Up]	28 to 28	1.5 to 1.5	35	24	17	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9728-WRW P33xW53 Label	Alien Higgs4	[IC Facing Up]	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9728-WRW	Alien Higgs4	[IC Facing Up]	29 to 48	7 to 11	44	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9728-WRW	Alien Higgs4	[IC Facing Up]	29 to 48	28 to 32	45	24	20	Standard	28	to	32	-	to	-	-	to	-
Global	Alien Technology	ALN-9768-WRW	Alien Higgs4	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	Alien Technology	ALN-9768-WRW	Alien Higgs4	[IC Facing Up]	47 to 61	17 to 33	46	6	6	Standard	17	to	22	23	to	28	29	to	33
FCC	Alien Technology	ALN-9715-WRW	Alien Higgs4	[IC Facing Up]	36 to 37	3 to 5	25	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Alien Technology	ALN-9715-WRW	Alien Higgs4	[IC Facing Up]	36 to 37	20 to 21	40	24	23	Standard	20	to	21	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9715-WRW	Alien Higgs4	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Alien Technology	ALN-9715-WRW	Alien Higgs4	[IC Facing Up]	36 to 37	17 to 26	30	24	23	Standard	17	to	22	23	to	26	-	to	-
Global	Arizon	AZ-9762	Alien Higgs4	[IC Facing Up]	35 to 50	0 to 3	25	24	19	Short	-	to	-	-	to	-	-	to	-
Global	Arizon	AZ-9762	Alien Higgs4	[IC Facing Up]	40 to 65	11 to 36	48	24	17	Standard	11	to	19	20	to	28	29	to	36
FCC	Arizon	AZ-C6	Impinj MonzaR6	[IC Facing Up]	28 to 29	9 to 12	20	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Arizon	AZ-C6	Impinj MonzaR6	[IC Facing Up]	14 to 15	26 to 38	25	24	19	Standard	26	to	29	30	to	33	34	to	38
ETSI	Arizon	AZ-C6	Impinj MonzaR6	[IC Facing Up]	23 to 24	9 to 12	16	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Arizon	AZ-C6	Impinj MonzaR6	[IC Facing Up]	14 to 19	25 to 38	30	24	18	Standard	25	to	29	30	to	34	35	to	38
FCC	Arizon	AZ-H7 with Paper	NXP UCOD7	[IC Facing Below]	41 to 47	3 to 5	40	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Arizon	AZ-H7 with Paper	NXP UCOD7	[IC Facing Below]	41 to 47	18 to 32	70	17	17	Standard	18	to	22	23	to	27	28	to	32
ETSI	Arizon	AZ-H7 with Paper	NXP UCOD7	[IC Facing Below]	41 to 47	3 to 5	35	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Arizon	AZ-H7 with Paper	NXP UCOD7	[IC Facing Below]	41 to 47	18 to 32	35	17	17	Standard	18	to	22	23	to	27	28	to	32
FCC	Arizon	AZ-M61-1+MR6-P Dry	Impinj MonzaR6-P	[IC Facing Up]	24 to 28	8 to 10	29	24	24	Short	8	to	10	-	to	-	-	to	-
FCC	Arizon	AZ-M61-1+MR6-P Dry	Impinj MonzaR6-P	[IC Facing Up]	32 to 43	19 to 33	37	18	18	Standard	19	to	23	24	to	28	29	to	33
ETSI	Arizon	AZ-M61-1+MR6-P Dry	Impinj MonzaR6-P	[IC Facing Up]	34 to 34	9 to 11	30	24	24	Short	9	to	11	-	to	-	-	to	-
ETSI	Arizon	AZ-M61-1+MR6-P Dry	Impinj MonzaR6-P	[IC Facing Up]	32 to 43	19 to 33	41	16	16	Standard	19	to	23	24	to	28	29	to	33
FCC	Arizon	AZ-F7+U7	NXP UCOD7	[IC Facing Below]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Arizon	AZ-F7+U7	NXP UCOD7	[IC Facing Below]	17 to 18	22 to 36	42	23	23	Standard	22	to	26	26	to	30	32	to	36
ETSI	Arizon	AZ-F7+U7	NXP UCOD7	[IC Facing Below]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Arizon	AZ-F7+U7	NXP UCOD7	[IC Facing Below]	35 to 36	15 to 24	34	21	21	Standard	15	to	19	17	to	21	20	to	24
FCC	Arizon	AZ-H7 U7	NXP UCOD7	[IC Facing Below]	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-110m5	Impinj Monza5	[IC Facing Up]	21.5 to 46.5	4 to 11	22	24	16	Short	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-110m5	Impinj Monza5	[IC Facing Up]	36.5 to 46.5	11 to 32	65	24	20	Standard	11	to	17	18	to	25	26	to	32
FCC	Avery Dennison	AD-171m5	Impinj Monza5	[IC Facing Up]	13.5 to 53.5	7 to 10	18	24	16	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-171m5	Impinj Monza5	[IC Facing Up]	13.5 to 23.5	11 to 35	60	24	19	Standard	11	to	18	19	to	27	28	to	35
ETSI	Avery Dennison	AD-171m5	Impinj Monza5	[IC Facing Up]	20.5 to 36.5	11 to 14	37	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-171m5	Impinj Monza5	[IC Facing Up]	17.5 to 21.5	10 to 35	50	24	24	Standard	10	to	21	22	to	28	29	to	35
Global	Avery Dennison	AD-227m5	Impinj Monza5	[IC Facing Up]	47.5 to 57.5	0 to 10	31	24	19	Short	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-227m5	Impinj Monza5	[IC Facing Up]	47.5 to 57.5	13 to 36	38	16	11	Standard	13	to	20	21	to	28	29	to	36
Global	Avery Dennison	AD-232L	NXP UCOD7 G2L	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-232L	NXP UCOD7 G2L	[IC Facing Up]	45 to 70	12 to 35	62	24	16	Standard	12	to	19	20	to	27	28	to	35
FCC	Avery Dennison	AD-233m5	Impinj Monza5	[IC Facing Up]	40 to 55	0 to 4	24	24	19	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-233m5	Impinj Monza5	[IC Facing Up]	40 to 70	15 to 37	63	23	17	Standard	15	to	21	22	to	29	30	to	37
ETSI	Avery Dennison	AD-233m5	Impinj Monza5	[IC Facing Up]	42 to 58	6 to 8	38	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-233m5	Impinj Monza5	[IC Facing Up]	42 to 58	17 to 39	40	24	24	Standard	17	to	24	25	to	31	32	to	39
Global	Avery Dennison	AD-235u7	NXP UCOD7	[IC Facing Up]	35 to 50	0 to 5	20	24	12	Short	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-235u7	NXP UCOD7	[IC Facing Up]	35 to 65	10 to 40	59	19	12	Standard	10	to	20	21	to	30	31	to	40
FCC	Avery Dennison	AD-318m5	Impinj Monza5	[IC Facing Up]	21 to 46	0 to 3	31	24	19	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-318m5	Impinj Monza5	[IC Facing Up]	31 to 61	11 to 31	52	23	19	Standard	11	to	17	18	to	24	25	to	31
ETSI	Avery Dennison	AD-318m5	Impinj Monza5	[IC Facing Up]	25 to 44	13 to 16	45	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-318m5	Impinj Monza5	[IC Facing Up]	28 to 44	16 to 34	63	24	20	Standard	16	to	22	23	to	29	30	to	34
FCC	Avery Dennison	AD-370u7	NXP UCOD7	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-370u7	NXP UCOD7	[IC Facing Up]	18.5 to 48.5	67 to 90	86	17	14	Standard	67	to	79	80	to	90	-	to	-
ETSI	Avery Dennison	AD-370u7	NXP UCOD7	[IC Facing Up]	12.5 to 21.5	9 to 11	41	20	10	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-370u7	NXP UCOD7	[IC Facing Up]	12.5 to 26.5	0 to 13	60	20	9	Standard	0	to	3	4	to	9	10	to	13
FCC	Avery Dennison	AD-226L	NXP UCOD7 G2L	[IC Facing Up]	47.5 to 57.5	0 to 10	24	24	19	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-226L	NXP UCOD7 G2L	[IC Facing Up]	47.5 to 62.5	16 to 37	41	24	15	Standard	16	to	22	23	to	29	30	to	37
ETSI	Avery Dennison	AD-226L_Label	NXP UCOD7 G2L	[IC Facing Up]	51.5 to 55.5	5 to 14	23	23	17	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-226L_Label	NXP UCOD7 G2L	[IC Facing Up]	51.5 to 55.5	17 to 32	39	20	17	Standard	17	to	24	25	to	32	-	to	-
Global	Avery Dennison	AD-317L	NXP UCOD7 G2L	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	Avery Dennison	AD-317L	NXP UCOD7 G2L	[IC Facing Up]	35.5 to 60.5	10 to 33	50	24	16	Standard	10	to	17	18	to	25	26	to	33
FCC	Avery Dennison	AD-236u7	NXP UCOD7	[IC Facing Up]	40 to 70	0 to 7	24	24	16	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-236u7	NXP UCOD7	[IC Facing Up]	40 to 50	8 to 31	37	18	8	Standard	8	to	15	16	to	23	24	to	31
ETSI	Avery Dennison	AD-236u7	NXP UCOD7	[IC Facing Up]	39 to 48	8 to 10	45	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Avery Dennison	AD-236u7	NXP UCOD7	[IC Facing Up]	39 to 48	12 to 40	47	24											

Region	Manufacturer	Inlay	IC Chip	Feed Orientation [IC Direction]	Position (mm)				Power (dBm)				[Y=] Standard Antenna Position [mm]								
					X	Y	S	Write	Read	Antenna Selection	Blue		Yellow		Green						
FCC	Avery Dennison	AD-810r6 WhiteWet (RF601144)	Impinj MonzaR6	[IC-Strap Facing Below]	12	31	10	12	27	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-810r6 WhiteWet (RF601144)	Impinj MonzaR6	[IC-Strap Facing Below]	20	31	26	37	56	23	23	Standard	26	to	29	30	to	33	34	to	37
FCC	Avery Dennison	AD-163u8 WhiteWet	NXP UCOD8 B	[IC Facing UP]	39	58	13	15	37	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-163u8 WhiteWet	NXP UCOD8 B	[IC Facing UP]	39	58	24	38	45	21	18	Standard	24	to	28	29	to	33	34	to	38
FCC	Avery Dennison	AD-663u7xm2k PaperLabel	NXP UCOD8 7xm2k	[IC-Strap Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
FCC	Avery Dennison	AD-663u7xm2k PaperLabel	NXP UCOD8 7xm2k	[IC-Strap Facing UP]	49	63	16	27	37	16	16	Standard	16	to	19	20	to	23	24	to	27
Global	SMARTRAC	DogBone i	NXP UCOD8 G2L/IM	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	DogBone i	NXP UCOD8 G2L/IM	[IC Facing UP]	44	59	1	30	50	24	9	Standard	1	to	10	11	to	20	21	to	30
Global	SMARTRAC	Short Dipole i	NXP UCOD8 G2L/IM	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Short Dipole i	NXP UCOD8 G2L/IM	[IC Facing UP]	46.5	56.5	14	34	45	24	11	Standard	14	to	20	21	to	27	28	to	34
Global	SMARTRAC	ShortDipole M4	Impinj MonzaR6 (IC/QT)	[IC Facing UP]	46.5	56.5	0	1	16	24	13	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	ShortDipole M4	Impinj MonzaR6 (IC/QT)	[IC Facing UP]	46.5	56.5	12	36	48	24	15	Standard	12	to	20	21	to	28	29	to	36
Global	SMARTRAC	Belt M5	Impinj Monza5	[IC Facing UP]	35	40	0	3	23	24	16	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt M5	Impinj Monza5	[IC Facing UP]	40	70	11	35	60	24	13	Standard	11	to	18	19	to	26	27	to	35
Global	SMARTRAC	MiniWeb i	NXP UCOD8 G2L/IM	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	MiniWeb i	NXP UCOD8 G2L/IM	[IC Facing UP]	45	60	18	35	47	24	12	Standard	18	to	23	24	to	29	30	to	35
FCC	SMARTRAC	Web i	NXP UCOD8 G2L	[IC Facing UP]	17.5	22.5	9	11	60	24	11	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	Web i	NXP UCOD8 G2L	[IC Facing UP]	12.5	27.5	34	49	93	24	12	Standard	-	to	-	34	to	41	42	to	49
ETSI	SMARTRAC	Web i	NXP UCOD8 G2L	[IC Facing UP]	16.5	35.5	10	15	67	24	16	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Web i	NXP UCOD8 G2L	[IC Facing UP]	16.5	25.5	18	47	86	24	15	Standard	18	to	28	29	to	38	39	to	47
FCC	SMARTRAC	WebLite M5	Impinj Monza5	[IC Facing UP]	23	33	0	5	36	24	23	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	WebLite M5	Impinj Monza5	[IC Facing UP]	33	63	14	37	45	23	18	Standard	14	to	21	22	to	29	30	to	37
ETSI	SMARTRAC	WebLite M5	Impinj Monza5	[IC Facing UP]	26	27	0	2	20	23	23	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	WebLite M5	Impinj Monza5	[IC Facing UP]	26	27	10	17	30	24	24	Standard	10	to	13	14	to	17	-	to	-
Global	SMARTRAC	Viper M4D	Impinj Monza4D	[IC Facing UP]	55	55	0	10	20	24	16	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Viper M4D	Impinj Monza4D	[IC Facing UP]	55	55	15	35	25	10	7	Standard	15	to	21	22	to	28	29	to	35
Global	SMARTRAC	Frog 3D M4	Impinj MonzaR6 (IC/QT)	[IC Facing UP]	25	30	3	6	60	24	19	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Frog 3D M4	Impinj MonzaR6 (IC/QT)	[IC Facing UP]	25	40	7	36	82	20	17	Standard	7	to	16	17	to	26	27	to	36
Global	SMARTRAC	Belt IL	NXP UCOD8 G2L	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt IL	NXP UCOD8 G2L	[IC Facing UP]	50	55	16	36	41	24	15	Standard	16	to	22	23	to	29	30	to	36
Global	SMARTRAC	Dogbone M4QT	Impinj Monza4QT	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Dogbone M4QT	Impinj Monza4QT	[IC Facing UP]	43	58	13	31	36	8	8	Standard	13	to	19	20	to	25	26	to	31
Global	SMARTRAC	ShortDipole M5	Impinj Monza5	[IC Facing UP]	46	56	0	3	19	20	18	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	ShortDipole M5	Impinj Monza5	[IC Facing UP]	46	61	20	34	31	10	9	Standard	20	to	24	25	to	29	30	to	34
FCC	SMARTRAC	Trap NF M5	Impinj Monza5	[IC Facing UP]	15	20	4	6	30	24	19	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	Trap NF M5	Impinj Monza5	[IC Facing UP]	14	19	16	19	33	24	20	Standard	16	to	19	-	to	-	-	to	-
ETSI	SMARTRAC	Trap NF M5	Impinj Monza5	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Trap NF M5	Impinj Monza5	[IC Facing UP]	16	27	20	27	41	24	23	Standard	20	to	22	23	to	27	-	to	-
FCC	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	29	45	2	8	35	17	17	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	29	38	0	5	42	16	10	Standard	0	to	5	-	to	-	-	to	-
ETSI	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	29	48	4	7	43	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	29	48	2	17	53	20	19	Standard	2	to	6	7	to	12	13	to	17
Global	SMARTRAC	Web-U7 P34xW54 Label	NXP UCOD8 7	[IC Facing UP]	30	30	1.5	1.5	40	24	16	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Web-U7 P34xW54 Label	NXP UCOD8 7	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	29	48	0	3	30	24	19	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Web-U7	NXP UCOD8 7	[IC Facing UP]	32	48	1	30	55	23	20	Standard	1	to	11	12	to	21	22	to	30
Global	SMARTRAC	Belt-U7 P13xW73 Paper Tag	NXP UCOD8 7	[IC Facing UP]	40	40	1.5	1.5	20	20	17	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-U7 P13xW73 Paper Tag	NXP UCOD8 7	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Belt-U7	NXP UCOD8 7	[IC Facing UP]	40.5	54.5	1	4	26	24	23	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Belt-U7	NXP UCOD8 7	[IC Facing UP]	40.5	59.5	15	37	50	23	20	Standard	15	to	22	23	to	30	31	to	37
ETSI	SMARTRAC	Web-IM	NXP UCOD8 G2M	[IC Facing UP]	-	-	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Web-IM	NXP UCOD8 G2M	[IC Facing UP]	24.5	30.5	26	37	71	24	16	Standard	-	to	-	26	to	31	32	to	37
Global	SMARTRAC	Belt-M5 P39xW93 Tag	Impinj Monza5	[IC Facing UP]	48.5	48.5	4.5	4.5	39	24	16	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-M5 P39xW93 Tag	Impinj Monza5	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	WebLite-M5 P39xW93 Tag	Impinj Monza5	[IC Facing UP]	36.5	36.5	6.5	6.5	39	24	23	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	WebLite-M5 P39xW93 Tag	Impinj Monza5	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-U7 P39xW93 Tag	NXP UCOD8 7	[IC Facing UP]	48.5	48.5	3	3	39	20	17	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-U7 P39xW93 Tag	NXP UCOD8 7	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	WebLite-M5 P18xW49 PaperFag	Impinj Monza5	[IC Facing UP]	26.5	26.5	2	2	20	24	20	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	WebLite-M5 P18xW49 PaperFag	Impinj Monza5	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	MiniWeb-U7	NXP UCOD8 7	[IC Facing UP]	27	46	9	12	45	24	24	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	MiniWeb-U7	NXP UCOD8 7	[IC Facing UP]	35	46	14	37	65	17	17	Standard	14	to	21	22	to	29	30	to	37
FCC	SMARTRAC	MiniWeb-U7 P18xW49 Label	NXP UCOD8 7	[IC Facing UP]	27	27	1	1	20	17	17	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	MiniWeb-U7 P18xW49 Label	NXP UCOD8 7	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	MiniWeb-U7 P18xW49 Label	NXP UCOD8 7	[IC Facing UP]	27	27	1	1	20	20	20	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	MiniWeb-U7 P18xW49 Label	NXP UCOD8 7	[IC Facing UP]	-	-	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-R6 [3003158]	Impinj MonzaR6	[IC Facing UP]	39.5	39.5	2	3	20	18	18	Short	-	to	-	-	to	-	-	to	-
Global	SMARTRAC	Belt-R6 [3003158]	Impinj MonzaR6	[IC Facing UP]	39.5	39.5	16	30	45	17	15	Standard	16								

Region	Manufacturer	Inlay	IC Chip	Feed Orientation [IC Direction]	Position (mm)			Power (dBm)			(Y=) Standard Antenna Position [mm]								
					X	Y	S	Write	Read	Antenna Selection	Blue		Yellow		Green				
FCC	SMARTRAC	Belt(FAT)-MR6-P Wet [3006790]	Impinj MonzaR6-P	[IC Facing Up]	39 to 48	9 to 11	28	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	Belt(FAT)-MR6-P Wet [3006790]	Impinj MonzaR6-P	[IC Facing Up]	39 to 58	20 to 34	35	10	10	Standard	20	to	24	25	to	29	30	to	34
FCC	SMARTRAC	MiniWeb FCC-MR6-P [3005081]	Impinj MonzaR6-P	[IC Facing Below]	25 to 44	2 to 4	29	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	MiniWeb FCC-MR6-P [3005081]	Impinj MonzaR6-P	[IC Facing Below]	33 to 44	16 to 27	39	17	17	Standard	16	to	19	20	to	23	24	to	27
ETSI	SMARTRAC	Wings U8 [3007250]	NXP UCODE 8	[IC Facing Up]	40 to 54	7 to 12	57	17	10	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	Wings U8 [3007250]	NXP UCODE 8	[IC Facing Up]	40 to 54	7 to 12	44	10	6	Standard	16	to	21	-	to	-	-	to	-
FCC	SMARTRAC	Wings U8 [3007250]	NXP UCODE 8	[IC Facing Up]	40 to 54	8 to 13	65	18	14	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	Wings U8 [3007250]	NXP UCODE 8	[IC Facing Up]	40 to 54	8 to 13	40	11	8	Standard	16	to	21	-	to	-	-	to	-
FCC	SMARTRAC	DogBone-U8 Wet [3006910]	NXP UCODE 8	[IC Facing Up]	51 to 60	2 to 6	41	18	15	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	DogBone-U8 Wet [3006910]	NXP UCODE 8	[IC Facing Up]	51 to 60	12 to 17	31	12	9	Standard	12	to	17	-	to	-	-	to	-
ETSI	SMARTRAC	DogBone-U8 Wet [3006910]	NXP UCODE 8	[IC Facing Up]	51 to 60	2 to 7	41	19	12	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	DogBone-U8 Wet [3006910]	NXP UCODE 8	[IC Facing Up]	51 to 60	12 to 17	31	9	7	Standard	12	to	17	-	to	-	-	to	-
FCC	SMARTRAC	DogBone-U7xm2k Wet [3006763]	NXP UCODE 7xm2k	[IC Facing Up]	0 to 0	0 to 0	0	NG	NG	Short	-	to	-	-	to	-	-	to	-
FCC	SMARTRAC	DogBone-U7xm2k Wet [3006763]	NXP UCODE 7xm2k	[IC Facing Up]	51 to 60	3 to 8	40	16	14	Standard	3	to	8	-	to	-	-	to	-
ETSI	SMARTRAC	DogBone-U7xm2k Wet [3006763]	NXP UCODE 7xm2k	[IC Facing Up]	0 to 0	0 to 0	0	NG	NG	Short	-	to	-	-	to	-	-	to	-
ETSI	SMARTRAC	DogBone-U7xm2k Wet [3006763]	NXP UCODE 7xm2k	[IC Facing Up]	51 to 60	14 to 19	35	12	8	Standard	14	to	19	-	to	-	-	to	-
Global	Invengo	Invengo Great Wall M5	Impinj Monza5		47 to 62	0 to 2	30	24	20	Short	-	to	-	-	to	-	-	to	-
Global	Invengo	Invengo Great Wall M5	Impinj Monza5		47 to 57	11 to 37	36	18	15	Standard	11	to	19	20	to	28	29	to	37
Global	Invengo	Invengo xWing M5	Impinj Monza5		34.5 to 49.5	2 to 4	25	24	18	Short	-	to	-	-	to	-	-	to	-
Global	Invengo	Invengo xWing M5	Impinj Monza5		39.5 to 64.5	7 to 34	54	20	19	Standard	7	to	15	16	to	24	25	to	34
FCC	Invengo	xWing-M5 P21xW77 Label	Impinj Monza5	[IC Facing Below]	39.5 to 39.5	3.5 to 3.5	30	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P21xW77 Label	Impinj Monza5	[IC Facing Below]	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P21xW77 Label	Impinj Monza5	[IC Facing Below]	41 to 41	0.5 to 0.5	30	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P21xW77 Label	Impinj Monza5	[IC Facing Below]	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
ETSI	Invengo	xWing-M5	Impinj Monza5	[IC Facing Below]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	Invengo	xWing-M5	Impinj Monza5	[IC Facing Below]	38.5 to 57.5	15 to 32	45	20	17	Standard	15-20	to	15-20	21	to	26	27	to	32
FCC	Invengo	xWing-M5 P35xW76 Label	Impinj Monza5	[IC Facing Below]	40.5 to 40.5	13 to 13	38	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P35xW76 Label	Impinj Monza5	[IC Facing Below]	40.5 to 40.5	13 to 13	38	12	12	Standard	13	to	13	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P20xW76 Label	Impinj Monza5	[IC Facing Below]	40.5 to 40.5	1 to 1	23.5	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-M5 P20xW76 Label	Impinj Monza5	[IC Facing Below]	-	-	-	-	-	Standard	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-U7	NXP UCODE 7	[IC Facing Below]	38.5 to 42.5	0 to 8	35	24	24	Short	-	to	-	-	to	-	-	to	-
FCC	Invengo	xWing-U7	NXP UCODE 7	[IC Facing Below]	38.5 to 42.5	17 to 37	45	24	13	Standard	17	to	23	24	to	30	31	to	37
ETSI	Invengo	xWing-U7	NXP UCODE 7	[IC Facing Below]	38.5 to 42.5	8 to 13	40	24	24	Short	-	to	-	-	to	-	-	to	-
ETSI	Invengo	xWing-U7	NXP UCODE 7	[IC Facing Below]	38.5 to 42.5	17 to 37	45	24	13	Standard	17	to	23	24	to	30	31	to	37
Global	CHECKPOINT	Champion-M5	Impinj Monza5		40 to 45	0 to 2	27	24	19	Short	-	to	-	-	to	-	-	to	-
Global	CHECKPOINT	Champion-M5	Impinj Monza5		40 to 70	8 to 35	58	20	20	Standard	8	to	16	17	to	25	26	to	35
FCC	CHECKPOINT	WindAparrel-M5	Impinj Monza5		30 to 45	8 to 11	46	23	20	Short	-	to	-	-	to	-	-	to	-
FCC	CHECKPOINT	WindAparrel-M5	Impinj Monza5		30 to 65	20 to 41	82	16	13	Standard	20	to	26	27	to	34	35	to	41
ETSI	CHECKPOINT	WindAparrel-M5	Impinj Monza5		37 to 38	10 to 13	53	24	23	Short	-	to	-	-	to	-	-	to	-
ETSI	CHECKPOINT	WindAparrel-M5	Impinj Monza5		29 to 38	0 to 13	75	23	18	Standard	0	to	4	5	to	8	9	to	13
ETSI	SML	GB2U-M5	Impinj Monza5	[IC Facing Up]	-	-	-	-	-	Short	-	to	-	-	to	-	-	to	-
ETSI	SML	GB2U-M5	Impinj Monza5	[IC Facing Up]	32 to 43	16 to 32	60	23	23	Standard	16	to	21	22	to	27	29	to	32