TypeMatrix USB-2030-B

Esc	Dvorak F1	102 F2	106 F3	F4	F5	Del O Ins	F6	Power F7	Sleep F8	Wake F9	Prt.Sc. F10	Scroll F11	Pause F12	N.lock Num
~	1	2	3	4	5	™	6	7	8	9	0	-	=	
₩	Q	w	E	R	Т	vo/+	Υ	U	ĺ	0 -*	P /	{ •	}	∞ ⊬
Û	А	s	D	F O	G	Ą	H	J o ↑	K ⊻	L 7	; 8	9	Û	∯ AC
	Z	х	С	V	В	vo⊦	N ←	M ↓	, →	4	′ ° 5	۱ 6		₩ 🛛
Ctrl	play <i>cut</i>	menu <i>copy</i>	shuffle paste		/latrix™				dsktp ##	K 1	↑ ₂	3 74	Ctrl	\$ ↓
Fn	Start	Alt						mute	Alt	← 0	[↓] °00	⇒ .	Enter	\$

This is only a simplified schema of the USB-2030 design. A few labels should be replaced by symbols (e.g. vol+/-/mute), and other details are likely to change. The 5 bumps on Del, F, J, num.5 and num.00 are not represented in the PDF document.

The modifier keys (Shift, Ctrl, Alt, Start, Fn) are consistant in all layers; if possible, the membrane should be designed to support two additional modifier keys: 'shuffle/dsktp' (on this schema). The idea is to let users to remap these keys as 'Alt', for example:

- some Japanese users might want to switch 'Alt' keys with 'henkan/muhenkan';
 some European users might want to have two 'AltGr' keys instead of 'Alt/AltGr', and use 'shuffle/dsktp' as two 'Alt' keys.

Note that a few keys do not use HID codes from the 'standard keyboard' page (#7):

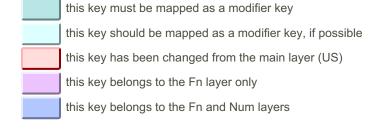
- 3 keys send 'generic desktop' codes (page #1): power, sleep, wake
 11 keys send 'consumer' codes (page #12): play, vol+/-/mute, prev/next, back/forward, calc, mail, web
 6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle (Alt+Tab), desktop (Start+D)
 the numeric 00 sends the standard keyboard HID code '0x62' twice
- «Fn», «Num», «Dvorak», «102», «106» do not send any HID code (internal usage)

The full description of the key mapping is described in the next pages.

TypeMatrix USB-2030-B-US

Esc		F1		F2		F3	1	F4		F5		Delete	F6		F7		F8		F9		F10		F11		F12		Num
t11	29	t12	3a	t13	3b	t14	3с	t15	3d	t16	3e	t17 4c	t18	3f	t19	40	t1a	41	t1b	42	t1c	43	t1d	44	t1e	45	t1f
~		1		2		3		4		5		t17 4c	6		7		8		9		0		-		=		calc
t21	35	t22	1e	t23	1f	t24	20	t25	21	t26	22	Back space	t28	23	t29	24	t2a	25	t2b	26	t2c	27	t2d	2d	t2e	2e	t2f 0192
Tab		Q		W		E		R		Т		t27 2 a	Υ		U		I		0		Р		{		}		mail
t31	2b	t32	14	t33	1a	t34	08	t35	15	t36	17		t38	1c	t39	18	t3a	0с	t3b	12	t3c	13	t3d	2f	t3e	30	t3f 018a
Shift		А		S		D		F		G		Enter	Н		J		К		L		;		'		Shift		caps
t41	e1	t42	04	t43	16	t44	07	t45	09	t46	0a	t47 28	t48	0b	t49	0d	t4a	0e	t4b	0f	t4c	33	t4d	34	t4e	e5	t4f 39
		Z		Х		С		V		В			N		М		,				/		\				web
		t52	1d	t53	1b	t54	06	t55	19	t56	05		t58	11	t59	10	t5a	36	t5b	37	t5c	38	t5d	31			t5f 0223
Ctrl		play		арр		shuf	ffle										deskt	ор	Home		1		End		Ctrl		PgUp
t61	e0	t62	00cd	t63	65	t64 (e2+2b										t6a e3	3+07	t6b	4a	t6c	52	t6d	4d	t6e	e4	t6f 4b
Fn		Start			Alt			t65								2c	Alt		←				\rightarrow				PgDn
t71		t72		e3	t73		e2										t7a	e6	t7b	50	t7c	51	t7d	4f			t7f 4e

Layout 'USB-2030-B' rev. 105



[xx] keyboard codes

Most keys send standard 'keyboard' codes (page #7)
Warning: 3 keys send 'generic desktop' codes (page #1): power, sleep, wake

[xxxx] 'consumer' codes (page #12)

11 keys send long HID codes: play, vol+/-/mute, prev/next track, prev/next page, calc, mail, web

[xx]+[xx] combos

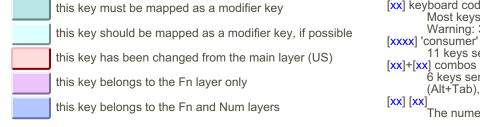
6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle (Alt+Tab), desktop (Start+D)

[xx][xx]

TypeMatrix USB-2030-B-DV

Esc		F1		F2		F3		F4		F5		Delete		F6		F7		F8		F9		F10		F11		F12		Num
t11	29	t12	3a	t13	3b	t14	3с	t15	3d	t16	3e		4c	t18	3f	t19	40	t1a	41	t1b	42	t1c	43	t1d	44	t1e	45	t1f
~		1		2		3		4		5		117	40	6		7		8		9		0		[]		calc
t21	35	t22	1e	t23	1f	t24	20	t25	21	t26	22	Back space		t28	23	t29	24	t2a	25	t2b	26	t2c	27	t2d	2f	t2e	30	t2f 0192
Tab		'		,				Р		Υ		t27	2a	F		G		С		R		L		/		=		mail
t31	2b	t32	34	t33	36	t34	37	t35	13	t36	1c			t38	09	t39	0a	t3a	06	t3b	15	t3c	Of	t3d	38	t3e	2e	t3f 018a
Shift		А		0		Е		U		I		Enter		D		Н		Т		N		S		-		Shift		caps
t41	e1	t42	04	t43	12	t44	08	t45	18	t46	0с	t47	28	t48	07	t49	0b	t4a	17	t4b	11	t4c	16	t4d	2d	t4e	e5	t4f 39
		;		Q		J		K		X				В		M		W		V		Z		\				web
		t52	33	t53	14	t54	0d	t55	0e	t56	1b			t58	05	t59	10	t5a	1a	t5b	19	t5c	1d	t5d	31			t5f 0223
Ctrl		play		арр		shu	ıffle					•						desk	top	Home		1		End		Ctrl		PgUp
t61	e0	t62	00cd	t63	65	t64	e2+2b											t6a e	3+07	t6b	4a	t6c	52	t6d	4d	t6e	e4	t6f 4b
Fn		Start			Alt			t65									2c	Alt		←				\rightarrow				PgDn
t71		t72		e3	t73		e2											t7a	e6	t7b	50	t7c	51	t7d	4f			t7f 4e

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[xx] keyboard codes

Most keys send standard 'keyboard' codes (page #7)
Warning: 3 keys send 'generic desktop' codes (page #1): power, sleep, wake

[xxxx] 'consumer' codes (page #12)

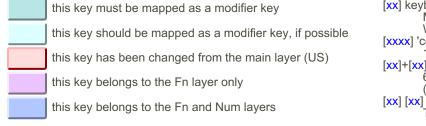
11 keys send long HID codes: play, vol+/-/mute, prev/next track, prev/next page, calc, mail, web

6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle (Alt+Tab), desktop (Start+D)

TypeMatrix USB-2030-B-102

Esc		F1		F2		F3		F4		F5		Delete		F6		F7		F8		F9	F1	0	F11		F12		Nun	n
t11	29	t12	3a	t13	3b	t14	3c	t15	3d	t16	3e	t17	4-	t18	3f	t19	40	t1a 4	1	t1b 42	t1c	43	t1d	44	t1e	45	t1f	
~		1		2		3		4		5		117	4c	6		7		8	1	9	0]-		=		calc	;
t21	35	t22	1e	t23	1f	t24	20	t25	21	t26	22	Back space		t28	23	t29	24	t2a 2	5	t2b 26	t2c	27	t2d	2 d	t2e	2e	t2f	0192
Tab		Q		W		E		R		Т		t27	2a	Υ		U		I		0	Р		{		}		mail	
t31	2b	t32	14	t33	1a	t34	08	t35	15	t36	17			t38	1c	t39	18	t3a 0	С	t3b 12	t3c	13	t3d	21	t3e	30	t3f	018a
Shift		А		S		D		F		G		Enter		Н		J		K		L	;		1		Shift		cap	s
t41	e1	t42	04	t43	16	t44	07	t45	09	t46	0a	t47	28	t48	0b	t49	0d	t4a 0 0	е	t4b Of	t4c	33	t4d	34	t4e	e5	t4f	39
		Z		X		С		V		В				N		М		,			/		١				web	
		t52	1d	t53	1b	t54	06	t55	19	t56	05			t58	11	t59	10	t5a 3 (6	t5b 37	t5c	38	t5d	31			t5f	0223
Ctrl		<		арр		shuffle	Э											desktop		Home	1		End	d	Ctrl		PgL	Jp
t61	e0	t62	64	t63	65	t64 e2	2+2b											t6a e3+0	7	t6b 4a	t6c	52	t6d	4d	t6e	e4	t6f	4b
Fn		Start			Alt			t65									2c	AltGr		←			\rightarrow				PgD)n
t71		t72		e3	t73		e2											t7a el	6	t7b 50	t7c	51	t7d	41			t7f	4e

Layout 'USB-2030-B' rev. 105



[xx] keyboard codes

Most keys send standard 'keyboard' codes (page #7)
Warning: 3 keys send 'generic desktop' codes (page #1): power, sleep, wake

[xxxx] 'consumer' codes (page #12)

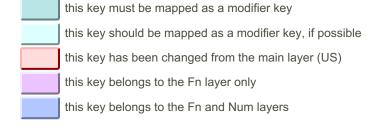
11 keys send long HID codes: play, vol+/-/mute, prev/next track, prev/next page, calc, mail, web [xx]+[xx] combos

6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle (Alt+Tab), desktop (Start+D)

TypeMatrix USB-2030-B-106

Esc		F1		F2		F3		F4		F5		Delete	F6		F7		F8		F9		F10		F11		F12		Num	
t11	29	t12	3a	t13	3b	t14	3с	t15	3d	t16	3e	t17 4c	t18	3f	t19	40	t1a	41	t1b 4	2	t1c	43	t1d	44	t1e	45	t1f	
zenha	n	1		2		3		4		5		t17 4c	6		7		8		9		0		-		٨		¥	
t21	35	t22	1e	t23	1f	t24	20	t25	21	t26	22	Back space	t28	23	t29	24	t2a	25	t2b 2	26	t2c	27	t2d	2d	t2e	2e	t2f	89
Tab		Q		W		E		R		Т		t27 2 a	Υ		U		I		0		Р		@		[]	
t31	2b	t32	14	t33	1a	t34	08	t35	15	t36	17		t38	1c	t39	18	t3a	0c	t3b 1	2	t3c	13	t3d	2f	t3e	30	t3f	31
Shift		А		S		D		F		G		Enter	Н		J		К		L		;		:		Shift		caps	
t41	e1	t42	04	t43	16	t44	07	t45	09	t46	0a	t47 28	t48	0b	t49	0d	t4a	0e	t4b	0f	t4c	33	t4d	34	t4e	e5	t4f	39
		Z		X		С		V		В			N		М		,				/		١				kana	
		t52	1d	t53	1b	t54	06	t55	19	t56	05		t58	11	t59	10	t5a	36	t5b 3	37	t5c	38	t5d	86			t5f	88
Ctrl		play		арр		muhe	enkan										henkaı	n	Home		1		End		Ctrl		PgUp	
t61	e0	t62	00cd	t63	65	t64	8b										t6a	8a	t6b 4	la	t6c	52	t6d	4d	t6e	e4	t6f	4b
Fn		Start			Alt			t65								2c	Alt		←		\		\rightarrow				PgDn	
t71		t72		e3	t73		e2										t7a	e6	t7b 5	50	t7c	51	t7d	4f			t7f	4e

Layout 'USB-2030-B' rev. 105



[xx] keyboard codes

Most keys send standard 'keyboard' codes (page #7)
Warning: 3 keys send 'generic desktop' codes (page #1): power, sleep, wake

[xxxx] 'consumer' codes (page #12)

11 keys send long HID codes: play, vol+/-/mute, prev/next track, prev/next page, calc, mail, web [xx]+[xx] combos

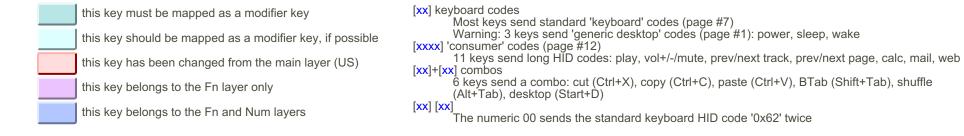
6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle (Alt+Tab), desktop (Start+D)

[xx][xx]

TypeMatrix USB-2030-B-Fn

	Dvorak	102		106			Insert		Powe	r	Slee	p	Wake		Prt.	Sc.	Scrol	I	Pause)	N.Lo	ck
t11	t12	t13		t14	t15	t16	t17 49	t18	t19	81	t1a	82	t1b	83	t1c	46	t1d	47	t1e	48	t1f	53
							117 49														calc	
t21	t22	t23		t24	t25	t26	vol+	t28	t29		t2a		t2b		t2c		t2d		t2e		t2f	0192
							t27 00e9						Tab		1		*		-		BTab	,
t31	t32	t33		t34	t35	t36		t38	t39		t3a		t3b	2b	t3c	54	t3d	55	t3e	56	t3f e	5+2b
							vol-	Home	1		End		7		8		9		+		clear	
t41	t42	t43		t44	t45	t46	t47 00ea	t48 4a	t49	52	t4a	4d	t4b	5f	t4c	60	t4d	61	t4e	57	t4f	29
								←	↓		\rightarrow		4		5		6				BSpa	ace
	t52	t53		t54	t55	t56		t58 50	t59	51	t5a	4f	t5b	5c	t5c	5d	t5d	5e			t5f	2a
	cut	сору		paste							prev		1		2		3		Enter		back	
t61	t62 e4+1b	t63 e	4+06	t64 e4+19	mute						t6a	00b6	t6b	59	t6c	5a	t6d	5b	t6e	58	t6f	0224
Fn	Right Start		Right	t Alt	t65				(00e2	next		0		00						forwa	ard
t71	t72	e7	t73	e6							t7a	00b5	t7b	62	t7c	62 62	t7d	63			t7f	0225

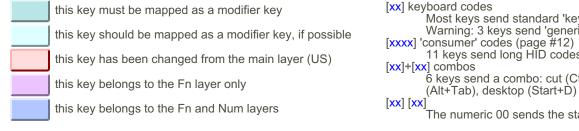
Layout 'USB-2030-B' rev. 105



TypeMatrix USB-2030-B-Nm

t11	t12	t13		t14	t15	t16		t18	t19	t1a	t1b	t1c	t1d	t1e	t1f
							t17								calc
t21	t22	t23		t24	t25	t26		t28	t29	t2a	t2b	t2c	t2d	t2e	t2f 0192
							t27				Tab	1	*	-	BTab
t31	t32	t33		t34	t35	t36		t38	t39	t3a	t3b 2b	t3c 54	t3d 55	t3e 56	t3f e5+2b
								Home	↑	End	7	8	9	+	clear
t41	t42	t43		t44	t45	t46	t47	t48 4a	t49 52	t4a 4d	t4b 5f	t4c 60	t4d 61	t4e 57	t4f 29
								←	1	\rightarrow	4	5	6		BSpace
	t52	t53		t54	t55	t56		t58 50	t59 51	t5a 4f	t5b 5c	t5c 5d	t5d 5e		t5f 2a
						•		•			1	2	3	Enter	
t61	t62	t63		t64						t6a	t6b 59	t6c 5a	t6d 5b	t6e 58	t6f
Fn					t65						0	00			
t71	t72		t73							t7a	t7b 62	t7c 62 62	t7d 63		t7f

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Most keys send standard 'keyboard' codes (page #7)
Warning: 3 keys send 'generic desktop' codes (page #1): power, sleep, wake

[xxxx] 'consumer' codes (page #12)
11 keys send long HID codes: play, vol+/-/mute, prev/next track, prev/next page, calc, mail, web

[xx]+[xx] combos
6 keys send a combo: cut (Ctrl+X), copy (Ctrl+C), paste (Ctrl+V), BTab (Shift+Tab), shuffle