

Nyquest *NY2 Series — 1-ch Speech or Dual-Tone Melody Synthesizer (State Machine)*

2024/11/28

P/N	Sec (6kHz)	Note (x1)	MOQ (K pcs)	MFQ (K pcs)	Operating Voltage	I	I/O	OKY	Toggle On/Off	Matrix Key	QIO	QLED	LCO	CSC	Mode Switch	POP	Edge Loop	Loop On/Off	Loop End	Level Sequential	Voice Select	Alarm/ Snooze	Internal Feedback	Noise TG	Motor Recover
NY2P010A	10.50	7,872	OTP		1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2A001A1	0.90	1,344	52.5K	360K	1.8~5.5V	1	1	1	1	-	1	1	1	-	-	v	v	v	-	1	1	v	1	v	-
NY2B001A1	1.05	1,568	47.9K	300K	1.8~5.5V	1	2	1	1	-	2	2	2	-	-	v	v	v	-	1	1	v	1	v	-
NY2B002A1	1.79	2,688	47.9K	270K	1.8~5.5V	1	2	1	1	-	2	2	2	-	-	v	v	v	-	1	1	v	1	v	-
NY2B004A	4.52	6,784	41.1K	250K	1.8~5.5V	1	2	1	1	-	2	2	2	-	-	v	v	v	-	1	1	v	1	v	-
NY2B007A	7.17	10,752	41.1K	220K	1.8~5.5V	1	2	1	1	-	2	2	2	-	-	v	v	v	-	1	1	v	1	v	-
NY2C001A	1.47	1,104	30.7K	200K	1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2C003A	2.58	1,936	30.7K	180K	1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2C005A	5.46	4,096	26.2K	170K	1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2C008A	7.85	5,888	26.2K	150K	1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2C010A	10.33	7,744	26.2K	140K	1.8~5.5V	1	5	2	2	v	2	5	5	5	v	v	v	v	v	2	2	v	2	v	2
NY2D001A	-	256	82.0K	500K	1.3~5.5V	-	1	-	-	-	-	1	1	1	-	v	-	-	-	-	-	-	1	-	-

P/N	Section	Sentence	Step	Octave	Beat	Beat Synthesize	Tempo	Envelope Level	Patch Level	Patch Period	Operating Freq.	Playspeed Freq.	Int. Rosc	Ext. Rosc	LVR	PWM	Large PWM	DAC	Pad Count
NY2P010A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1%	-	v	8-bit	v	-	11
NY2A001A1	32	32	256	5/6	7	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	6
NY2B001A1	32	32	256	5/6	7	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	7
NY2B002A1	32	32	256	5/6	7	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	7
NY2B004A	32	32	256	5/6	7	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	7
NY2B007A	32	32	256	5/6	7	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	7
NY2C001A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	10
NY2C003A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	10
NY2C005A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	10
NY2C008A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	10
NY2C010A	128	128	512	5/6	8	v	25	128	4	16/8	1.5MHz	16	+/- 1.5%	-	v	8-bit	v	-	10
NY2D001A	8	1	16	6	7	v	25	128	-	-	1.5MHz	-	+/- 1.5%	-	v	8-bit	-	-	5

Remarks:

- Matrix Key: 3*4, 3*3, 2*4, 2*3, 2*2 key combination.
- Mode-Switch: 2 modes of different sentence combination by one input pin option.
- QIO: Quick-IO output signal. (by Voice)
- QLED: 8 kinds of Flexible LED output for NY2A/NY2B/2D, 11 kinds of Flexible LED output for NY2C. (by Tone)
- LCO & CSC: Large Current Output & Constant Sink Current for high brightness LED at 3V and 4.5V.
- POP: Power On Play, E/U/R.
- Edge-Loop: E/U/R, one sentence played in loop.
- Loop On/Off: Cooperate with Edge-Loop, one sentence played in loop & Toggle On/Off.
- Loop-End: Cooperate with Edge-Loop, stop after the last sentence.
- Level-Sequential: One-Shot, Hold with Sequential function.
- Voice-Select: Song select function for door bell application.
- Noise-TG: Noise Trigger for lighter application.
- Octave: For NY2A/NY2B/NY2C, 5 octaves of Octave-2~6 with 16 Patch Period, 6 octaves of Octave-2~7 with 8 Patch Period. For NY2D, 6 octaves of Octave-2~7 or Octave-3~8 without patch.
- Patch Level: 0%, 25%, 50%, 100%.