Nyquest

New NY3 Series — 1-Channel Speech Synthesizer (State Machine)

2024/5/31

P/N	Sec (6kHz)	Sec (8kHz)	Voice Algorithm	MOQ (K pcs)	MFQ (K pcs)	Operating Voltage	I/O	OKY	Toggle On/Off	POP	QIO	LCO	LSC	CSC	LVR	Section	Sentence	Step	Operating Freq.	Playspeed Option	Playspeed Freq.	Int. Rosc	Motor Recover	Internal Feedback	Anti-Noise Debounce	Mode Switch	Pause Resume	TG-Invert	2-Key Priority	Special SC	Table Random	PWM	Large PWM	Pad Count	NY3(B)_FDB Ver.B
NY3P005J	OTP -- NY3A/3B/3C: 4.1", NY3D: 3.2"					1.8~5.5V	3	1	1	v	2	3	3	3	v	768	128	1536	1.5MHz	28	28	+/- 1%	-	v	v	-	v	v	-	-	v	10-bit	v	8	-02 -04 -08
NY3P010J	OTP -- NY3A/3B/3C: 12.2", NY3D: 9.8"					1.8~5.5V	3	1	1	v	2	3	3	3	v	768	128	1536	1.5MHz	28	28	+/- 1%	-	v	v	-	v	v	-	-	v	10-bit	v	8	-02 -04 -08
NY3P016J	OTP -- NY3A/3B/3C: 20.4", NY3D: 16.3"					1.8~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3P035J	OTP -- NY3A/3B/3C: 42.3", NY3D: 33.8"					1.8~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3P065J	OTP -- NY3A/3B/3C: 86.0", NY3D: 68.8"					1.8~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-04 -08
NY3P087J	OTP -- NY3A/3B/3C: 110.5", NY3D: 88.4"					1.8~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-04 -08
NY3P115J	OTP -- NY3A/3B/3C: 151.5", NY3D: 121.2"					1.8~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-08
NY3P016C	OTP -- NY3A/3B/3C: 20.4", NY3D: 16.3"					1.7~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3P035C	OTP -- NY3A/3B/3C: 42.3", NY3D: 33.8"					1.7~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3P065C	OTP -- NY3A/3B/3C: 86.0", NY3D: 68.8"					1.7~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-04 -08
NY3P087C	OTP -- NY3A/3B/3C: 110.5", NY3D: 88.4"					1.7~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-04 -08
NY3P115C	OTP -- NY3A/3B/3C: 151.5", NY3D: 121.2"					1.7~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	v	v	v	v	v	v	10-bit	v	10	-08
NY3P010D	OTP -- NY3A/3B/3C: 12.2", NY3D: 9.8"					1.8~5.5V	3	2	1	v	2	3	3	3	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	-	v	v	v	v	v	10-bit	v	8	-02 -04 -08
NY3P016D	OTP -- NY3A/3B/3C: 20.4", NY3D: 16.3"					1.8~5.5V	3	2	1	v	2	3	3	3	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	-	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3P035D	OTP -- NY3A/3B/3C: 42.3", NY3D: 33.8"					1.8~5.5V	3	2	1	v	2	3	3	3	v	768	128	1536	1.5MHz	28	28	+/- 1%	v	v	v	-	v	v	v	v	v	10-bit	v	10	-02 -04 -08
NY3A003D1	2.6	2.0	4-bit (S)	125K	700K	1.6~6.4V	1	1	-	v	-	1	-	-	-	16	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	7-bit	-	5	-02 -04 -08
NY3A006D1	5.2	3.9	4-bit (S)	107K	600K	1.6~6.4V	1	1	-	v	-	1	-	-	-	16	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	7-bit	-	5	-02 -04 -08
NY3A003E	3.1	2.3	4/5-bit	108K	550K	1.6~6.4V	1	1	-	v	1	1	-	-	-	32	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	9-bit	-	5	-02 -04 -08
NY3A006E1	6.1	4.6	4/5-bit	92K	450K	1.6~6.4V	1	1	-	v	1	1	-	-	-	32	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	9-bit	-	5	-02 -04 -08
NY3A009E	9.2	6.9	4/5-bit	69K	400K	1.6~6.4V	1	1	-	v	1	1	-	-	-	32	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	9-bit	-	5	-02 -04 -08
NY3A012E	12.3	9.2	4/5-bit	69K	350K	1.6~6.4V	1	1	-	v	1	1	-	-	-	32	16	256	768kHz	27	1	+/- 3%	-	-	-	-	-		-		-	9-bit	-	5	-02 -04 -08
NY3B003D	3.6	2.7	4/5-bit	97K	480K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-02 -04 -08
NY3B007D	7.2	5.4	4/5-bit	93K	460K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-03-20-20
NY3B010D	10.8	8.1	4/5-bit	61K	360K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-02 -04 -08
NY3B014D	14.3	10.8	4/5-bit	61K	320K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-02 -04 -08
NY3B017C	17.9	13.4	4/5-bit	49K	280K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-02 -04 -08
NY3B021C	21.5	16.1	4/5-bit	49K	240K	1.6~6.4V	2	1	1	v	2	2	-	-	-	16	2	64	768kHz	27	1	+/- 3%	-	v	-	-	-		-		-	9-bit	-	6	-02 -04 -08
NY3C003C	3.9	2.9	4/5-bit	68.7K	280K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C005C	5.3	4.0	4/5-bit	68.7K	260K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C007C	8.0	6.0	4/5-bit	68.7K	240K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C010C	10.8	8.1	4/5-bit	58.8K	220K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C016C	16.2	12.2	4/5-bit	58.8K	200K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C021C	21.7	16.3	4/5-bit	52.7K	170K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C027C	27.1	20.4	4/5-bit	48.8K	170K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C035C	38.1	28.5	4/5-bit	41.2K	160K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C043C	43.5	32.6	4/5-bit	39.0K	140K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-02 -04 -08
NY3C054C	54.4	40.8	4/5-bit	33.9K	130K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-04 -08
NY3C065C	65.4	49.0	4/5-bit	31.6K	120K	1.6~5.5V	3	1	1	v	2	3	3	3	v	224	32	896	1.5MHz	28	28	+/- 1.5%	-	v	v	-	-		-		-	9-bit	v	7	-04 -08

Nyquest

New NY3 Series — 1-Channel Speech Synthesizer (State Machine)

2024/5/31

P/N	Sec (6kHz)	Sec (8kHz)	Voice Algorithm	MOQ (K pcs)	MFQ (K pcs)	Operating Voltage	I/O	OKY	Toggle On/Off	POP	QIO	LCO	LSC	CSC	LVR	Section	Sentence	Step	Operating Freq.	Playspeed Option	Playspeed Freq.	Int. Rosc	Motor Recover	Internal Feedback	Anti-Noise Debounce	Mode Switch	Pause Resume	TG-Invert	2-Key Priority	Special SC	Table Random	PWM	Large PWM	Pad Count	NY3(B)_FDB Ver.B
NY3D010C	10.1	7.6	5-bit	50.1K	210K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-02 -04 -08
NY3D016C	15.6	11.7	5-bit	41.6K	190K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-02 -04 -08
NY3D021C	21.0	15.8	5-bit	41.6K	170K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-02 -04 -08
NY3D032C	31.9	24.0	5-bit	34.4K	140K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-02 -04 -08
NY3D043C	42.9	32.2	5-bit	30.7K	130K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-02 -04 -08
NY3D054C	53.8	40.3	5-bit	24.3K	120K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-04 -08
NY3D065C	64.7	48.5	5-bit	24.3K	100K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-04 -08
NY3D076C	75.6	56.7	5-bit	20.2K	100K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-04 -08
NY3D087C	86.6	64.9	5-bit	20.2K	90K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-04 -08
NY3D100C	102.9	77.2	5-bit	16.4K	90K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-08
NY3D115C	113.9	85.4	5-bit	16.4K	80K	1.6~5.5V	5	2	1	v	4	5	5	5	v	768	128	1536	1.5MHz	28	28	+/- 1.5%	v	v	v	v	v	v	v	v	v	10-bit	v	9	-08

Remarks:

1. 4-bit (S): NY3AxxxD use Simple 4-bit LOG-PCM algorithm, and it's normally applied in sound-effect applications.
2. 4/5-bit: 4-bit/5-bit Mixed Advanced LOG-PCM algorithm for NY3AxxxE & NY3BxxxC, and 4-bit/5-bit Mixed ADPCM algorithm for NY3C.
3. POP: Power On Play function.
4. QIO: Quick-IO output signal.
5. LCO & LSC: Normal Large Current Output & very Large Sink Current output.
6. CSC: Constant Sink Current output.
7. LVR: Low voltage reset at 1.5V.
8. Motor Recover: One input to detect recovering signal and let motor reset to orignal position.
9. Large PWM: Louder audio output than normal PWM.
10. NY3(B)_FDB: New NY3(B) series Flash Demo Board with multi-time programmable design.

Nyquest

NY3L Series — 1-Channel Speech Synthesizer with LED Control

2024/5/31

P/N	Sec (6kHz)	Sec (8kHz)	Voice Algorithm	MOQ (K pcs)	MFQ (K pcs)	Operating Voltage	I/O	OKY	Toggle On/Off	POP	QIO	LCO	Sink Current	LVR	Section	Sentence	Step	Operating Freq.	Playspeed Option	Playspeed Freq.	Int. Rosc	PWM On/Off	Edge Loop	Loop On/Off	Loop End	Anti-Noise Debounce	Noise TG	PWM	Large PWM	Pad Count	Flash Demo Board
NY3L003A	3.1	2.3	4/5-bit	65K	350K	1.6~6.4V	5	1	1	v	3	5	4-Level	-	32	16	256	768kHz	27	1	+/- 3%	v	v	v	v	v	v	v	9-bit	-	9	NY4_FDB-02
NY3L006A	6.1	4.6	4/5-bit	59K	300K	1.6~6.4V	5	1	1	v	3	5	4-Level	-	32	16	256	768kHz	27	1	+/- 3%	v	v	v	v	v	v	v	9-bit	-	9	NY4_FDB-02
NY3L009A	9.2	6.9	4/5-bit	50K	270K	1.6~6.4V	5	1	1	v	3	5	4-Level	-	32	16	256	768kHz	27	1	+/- 3%	v	v	v	v	v	v	v	9-bit	-	9	NY4_FDB-02
NY3L012A	12.3	9.2	4/5-bit	50K	250K	1.6~6.4V	5	1	1	v	3	5	4-Level	-	32	16	256	768kHz	27	1	+/- 3%	v	v	v	v	v	v	v	9-bit	-	9	NY4_FDB-02

Remarks:

1. 4-bit (S): NY3AxxxD use Simple 4-bit LOG-PCM algorithm, and it's normally applied in sound-effect applications.
2. 4/5-bit: 4-bit/5-bit Mixed Advanced LOG-PCM algorithm for NY3AxxxE & NY3BxxxC, and 4-bit/5-bit Mixed ADPCM algorithm for NY3C.
3. POP: Power On Play function.
4. QIO: Quick-IO output signal.
5. LCO & LSC: Normal Large Current Output & very Large Sink Current output.
6. CSC: Constant Sink Current output.
7. LVR: Low voltage reset at 1.5V.
8. 4-Level Sink Current: 100%, 80%, 50%, 30%.
9. Large PWM: Louder audio output than normal PWM.
10. Power PWM: Louder audio output than large PWM.