Nyquest

NY4 Series — 4-bit MCU with 1-ch Speech

2024/1/5

P/N	Sec (4-bit 6kHz)	Sec (4-bit 8kHz)	Voice Algorithm	MOQ (K pcs)	MFQ (K pcs)	Operating Voltage	ROM	SRAM	I/O	IR	QIO	LCO	Mute Code	Noise Filter	Oper. Freq.	Halt Mode	Int. Rosc	Ext. Rosc	Voice Channel	PWM	Large PWM	DAC	Pad Count	NY4_FDB
NY4P018C	18.3	13.7	4/5-bit	OTP		2.0~5.5V	48K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 0.5%	-	1	9-bit	v	-	15	-02, -04
NY4P045C	45.0	33.7	4/5-bit	OTP		2.0~5.5V	112K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 0.5%	-	1	9-bit	v	-	15	-02, -04
NY4P065C	65.0	48.7	4/5-bit	OTP		2.0~5.5V	160K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 0.5%	-	1	9-bit	v	-	15	-04
NY4P085C	85.0	63.7	4/5-bit	OTP		2.0~5.5V	208k x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 0.5%	-	1	9-bit	v	-	15	-04
NY4P105C	105.0	78.7	4/5-bit	OTP		2.0~5.5V	256K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 0.5%	-	1	9-bit	v	-	15	-04
NY4A003B	3.3	2.5	4/5-bit	52.1K	180K	2.0~5.5V	12K x 10	96 x 4	4	v	4	4	v	v	1MHz	v	+/- 1%	-	1	9-bit	-	-	10	-02, -04
NY4A005B	5.0	3.7	4/5-bit	52.1K	160K	2.0~5.5V	16K x 10	96 x 4	4	v	4	4	v	v	1MHz	v	+/- 1%	-	1	9-bit	-	-	10	-02, -04
NY4A008B	8.3	6.2	4/5-bit	47.1K	150K	2.0~5.5V	24K x 10	96 x 4	4	v	4	4	v	v	1MHz	v	+/- 1%	-	1	9-bit	-	-	10	-02, -04
NY4A011B	11.7	8.7	4/5-bit	47.1K	140K	2.0~5.5V	32K x 10	96 x 4	4	v	4	4	v	v	1MHz	v	+/- 1%	-	1	9-bit	-	-	10	-02, -04
NY4B003B	3.3	2.5	4/5-bit	46.2K	160K	2.0~5.5V	12K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B005B	5.0	3.7	4/5-bit	46.2K	150K	2.0~5.5V	16K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B008B	8.3	6.2	4/5-bit	42.1K	140K	2.0~5.5V	24K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B011B	11.7	8.7	4/5-bit	42.1K	130K	2.0~5.5V	32K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B018C	18.3	13.7	4/5-bit	38.5K	120K	2.0~5.5V	48K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B025B	25.0	18.7	4/5-bit	35.7K	110K	2.0~5.5V	64K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B038C	38.3	28.7	4/5-bit	30.8K	110K	2.0~5.5V	96K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B045B	45.0	33.7	4/5-bit	28.8K	100K	2.0~5.5V	112K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-02, -04
NY4B058C	58.3	43.7	4/5-bit	25.7K	100K	2.0~5.5V	144K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-04
NY4B065B	65.0	48.7	4/5-bit	24.5K	90K	2.0~5.5V	160K x 10	96 x 4	8	v	8	8	v	v	1MHz	v	+/- 1%	-	1	9-bit	v	-	14	-04

Remarks:

1. 4/5-bit: 4-bit/5-bit mixed ADPCM algorithm.
2. QIO: Quick-IO output signal.
3. LCO: Large current output.
4. Mute Code: Hardware auto silence compression for voice data.
5. Noise Filter: Linear interpolation for output signal.
6. NY4Pxxxx: OTP series for full function-compatible with NY4A/4B MaskROM series.
7. NY4_FDB: NY4 series Flash Demo Board with multi-time programmable design.
8. NY4PxxxC: Optional 9/10-bit PWM, Volume Control, LVD Function. (Not supported by NY4_FDB & NY4A/4B)