

(1) STN COLOR LCD DRIVER
 ■ LINE-UP

Type No.	FUNCTION	FEATURES	PACKAGE
NJU6815	128 X 80RGB-output 4,096-Color Bit Map	<ul style="list-style-type: none"> ● Display Data RAM 122,880bits/NJU6815 99,840bits/NJU6818 61,440bits/NJU6820 196,608bits/NJU6824 248,832bits/NJU6825 ● Direct Interface with both of 68 and 80 type CPU ● Serial Interface ● Voltage Booster x5 (NJU6820) Voltage Booster x6 (NJU6815/6818/6824) Voltage Booster x7 (NJU6825) ● Display Rotate Function/ Display Mirror Inverse Function (NJU6815/6824) ● Partial Display Function ● N-Line Inverse for High-Duty Display ● Precision Electrical Variable Resistance ● Internal Clock Operation ● Low Power Consumption ● Rectangle outlook for COG (NJU6815/6818/6820/6824) 	BUMPED CHIP
NJU6818	80 X 104RGB-output 4,096-Color Bit Map		BUMPED CHIP
NJU6820	40 X 128RGB-output 4,096-Color Bit Map		BUMPED CHIP
NJU6824	128 X 128RGB-output 4,096-Color Bit Map		BUMPED CHIP
NJU6825	162 X 128RGB-output 4,096-Color Bit Map		BUMPED CHIP
NJU6854	132 X 132RGB-output 65,536-Color Bit Map	<ul style="list-style-type: none"> ● Display Data RAM 278,784bits/NJU6854 327,680bits/NJU6855 ● Direct Interface with both of 68 and 80 type CPU ● Serial Interface ● Voltage Booster x6 (NJU6854) Voltage Booster x7 (NJU6855) ● Display Rotate Function/ Display Mirror Inverse Function (NJU6854) ● Partial Display Function ● N-Line Inverse for High-Duty Display ● Precision Electrical Variable Resistance ● Internal Clock Operation ● Low Power Consumption ● Rectangle outlook for COG (NJU6854/6855) 	BUMPED CHIP
NJU6855	160 X 128RGB-output 65,536-Color Bit Map		BUMPED CHIP

- In case of the custom TCP, please consult with New Japan Radio about initial cost.

LCD DRIVER/CONTROLLER SERIES LINE-UP

■ SPECIFICATION COMPARATIVE TABLE

No. Item \ Type	NJU6815	NJU6818	NJU6820	NJU6824	NJU6825
Display Capacity	128cx80RGB	80cx104RGB	40cx128RGB	128cx128RGB	162cx128RGB
Extension Function	-	-	-	-	-
Logic Operating Voltage	1.7V-3.3V	1.7V-3.3V	1.7V-3.3V	1.7V-3.3V	1.7V-3.3V
LCD Driving Voltage	18.0V	18.0V	18.0V	18.0V	18.0V
DD RAM Size	122,880	99,840	61,440	196,608	248,832
Interface	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial
Display Rotate function	Have	-	-	Have	-
Voltage Booster	Booster x6	Booster x6	Booster x5	Booster x6	Booster x7
Oscillation Circuits	CR	CR	CR	CR	CR
Bias Ratio	1/5-1/12	1/4-1/10	1/4-1/8	1/5-1/12	1/5-1/12
Electrical Variable	128 step	128 step	128 step	128 step	128 step
Duty	*	*	*	*	*

No. Item \ Type	NJU6854	NJU6855
Display Capacity	132cx132RGB	162cx128RGB
Extension Function	-	-
Logic Operating Voltage	1.7V-3.3V	1.7V-3.3V
LCD Driving Voltage	18.0V	18.0V
DD RAM Size	278,784	327,680
Interface	Parallel Serial	Parallel Serial
Display Rotate function	Have	-
Voltage Booster	Booster x6	Booster x7
Oscillation Circuits	CR	CR
Bias Ratio	1/5-1/12	1/5-1/12
Electrical Variable	128 step	256 step
Duty	*	*

* Partial Display Function to set one or two display areas on the screen with Automatic Duty cycle Ratio Selection.

■ SELLECTION GUIDE

Display	80RGB	104RGB	128 RGB	132 RGB	240 SEG	312 SEG	384 SEG	396 SEG
40 COM	-	-	NJU6820 ^{*3}	-	-	-	NJU6820 ^{*1}	-
80 COM	-	NJU6818 ^{*3}	NJU6815 ^{*3, *5}	-	-	NJU6818 ^{*1}	-	-
128COM	NJU6815 ^{*3}	-	NJU6824 ^{*2}	NJU6854 ^{*4}	NJU6815 ^{*1}	-	NJU6824 ^{*1}	NJU6854 ^{*2}
132COM	-	-	NJU6854 ^{*4, *5}	-	-	-	-	-
162 COM	-	-	NJU6825 ^{*3}	-	-	-	NJU6825 ^{*1}	-
			NJU6855 ^{*4}				NJU6855 ^{*2}	

^{*1} 16-Gray Scale.

^{*2} 32-Gray Scale.

^{*3} 4,096-color STN LCD Driver.

^{*4} 65,536-color STN LCD Driver.

^{*5} Display Rotate Function.

LCD DRIVER/CONTROLLER SERIES LINE-UP

(2) BIT MAP TYPE LCD DRIVER LINE-UP

Type No.	FUNCTION	FEATURES	PACKAGE
NJU6450A NJU6452A NJU6570 NJU6572	16 X 61-output Bit Map LCD Driver (Osc. Freq. =18KHz/NJU6450A /NJU6570) (Osc. Freq. = 2KHz/NJU6452A /NJU6572)	<ul style="list-style-type: none"> ● Direct Correspondence between Display Data RAM and LCD Pixel ● Display RAM 2,560bits ● Direct Interface with both of 68 and 80 type CPU ● Low Power Consumption ● Internal Clock Operation 18kHz/NJU6450A and 6570 ● External Clock Operation 2KHz/NJU6452A and 6572 ● Programmable Duty Read ● Extension Function (Can Combine with NJU6451A and 6453A) 	CHIP QFP 100 (NJU6450A/52A) BUMPED CHIP (NJU6450A/52A)
NJU6451A NJU6453A	80-output Bit Map LCD Extension Driver (Osc. Freq. =18KHz/NJU6451A) (Osc. Freq. = 2KHz/NJU6453A)	<ul style="list-style-type: none"> ● Display Data RAM 2,560bits ● External Clock Operation 18KHz/NJU6451A 2KHz/NJU6453A ● Low Power consumption 	CHIP QFP 100
NJU6457 NJU6458	80-output Positive Voltage Bit Map LCD Extension Driver (Osc. Freq. =18KHz/NJU6457) (Osc. Freq. = 2KHz/NJU6458)	<ul style="list-style-type: none"> ● Display Data RAM 2,560bits ● External Clock Operation 18KHz/NJU6451A 2KHz/NJU6453A ● Low Power consumption 	CHIP QFP 100
NJU6538 NJU6539	10 X 65-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Display Data RAM 650bits ● Serial Interface ● Programmable duty Ratio ● Bias Ratio 1/4 bias ● 25-key Scan Function(Maximum 5x5 matrix) ● Output Ports for LED drive (Maximum 4 LED) NJU6538 ● 128-step PWM control Output Ports for LED (Maximum 4 LED) NJU6539 ● Electrical Variable Resistance 	QFP 100
NJU6580	17 X 96-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Display Data RAM 1,904bits(NJU6580) 	BUMPED CHIP
NJU6673	25 X 100-output Bit Map LCD Driver	3,696 bits (NJU6583) 3,366 bits (NJU6578) 4,422 bits (NJU6575A)	BUMPED CHIP
NJU6583	33 X 96-output Bit Map LCD Driver	2,434 bits (NJU6576) 2,500 bits (NJU6673)	BUMPED CHIP
NJU6578	33 X 102-output Bit Map LCD Driver	5,148 bits (NJU6674) 5,568 bits (NJU6675) 8,580 bits (NJU6676)	BUMPED CHIP
NJU6575A	33 X 134-output Bit Map LCD Driver	10,400 bits (NJU6655) 15,840 bits (NJU6677)	BUMPED CHIP
NJU6576	34 X 101-output Bit Map LCD Driver for I ² C Bus Interface	21,120 bits (NJU6678V) 25,344 bits (NJU6679)	BUMPED CHIP
NJU6674	39 X 132-output Bit Map LCD Driver	32,768 bits (NJU6680) 84,480 bits (NJU6682)	BUMPED CHIP
NJU6675	58 X 96-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Direct Interface with both of 68 and 80 type CPU (except NJU6576) ● Serial Interface (I²C Bus Interface for NJU6576) ● Voltage Booster x 3 (NJU6580/6583/6578/6575A/6673/6675) ● Voltage Booster x 4 (NJU6674/6655/6676) ● Voltage Booster x 5 (NJU6677/6678V) ● Voltage Booster x 6 (NJU6679/6680) ● Voltage Booster x 7 (NJU6682) 	BUMPED CHIP
NJU6676	65 X 132-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Partial Display Function (NJU6677/6678V/6679/6680/6682) ● Variable RAM Map (NJU6682) 	BUMPED CHIP
NJU6655	65 X 160-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● N-Line Inverse for High-Duty Display (NJU6677/6678V/6679/6680/6682) ● Electrical Variable Resistance (NJU6580/6583) ● Precision Electrical Variable Resistance 	BUMPED CHIP
NJU6677	88 X 132-output Bit Map LCD Driver	(NJU6578/6575A/6673/6674/6675/6655/6676/6677/6678V/6679/6680/6682)	BUMPED CHIP
NJU6678V	104 X 132-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Common Driver Assignment Function (except NJU6576/6673/6677/6678V/6679/6680/6682) 	BUMPED CHIP
NJU6679	128 X 132-output Bit Map LCD Driver	<ul style="list-style-type: none"> ● Smooth Scroll function (NJU6580/6583) ● Internal Clock Operation (except NJU6580 and 6583) 	BUMPED CHIP
NJU6680	128 X 128-output 4-G/S Bit Map LCD Driver	<ul style="list-style-type: none"> ● Low Power Consumption ● Rectangle outlook for COG (NJU6578/6575A/6576/6674/6655/6676) 	BUMPED CHIP
NJU6682	160 X 132-output 4-G/S Bit Map LCD Driver		BUMPED CHIP

- In case of the custom TCP, please consult with New Japan Radio about initial cost.

LCD DRIVER/CONTROLLER SERIES LINE-UP

■ SPECIFICATION COMPARATIVE TABLE

No. Item \ Type	NJU6450A NJU6570	NJU6451A NJU6457	NJU6452A NJU6572	NJU6453A NJU6458	NJU6538 NJU6539	NJU6575A	NJU6578
Display Capacity	16cx61s	80-Output	16cx61s	80-Output	10cx65s	33cx134s	33cx102s
Extension Function	32cx122s	-	32cx122s	-	-	-	-
Logic Operating Voltage	2.4V-5.5V	2.4V-5.5V	2.4V-5.5V	2.4V-5.5V	2.7V-5.5V	2.4V-5.5V	2.4V-5.5V
LCD Driving Voltage	13.5V 10.0V	13.5V	13.5V 10.0V	13.5V	10.0V	13.5V	10.0V
DD RAM Size	2,560	2,560	2,560	2,560	650	4,422	3,366
Interface	Parallel	Parallel	Parallel	Parallel	Serial	Parallel Serial	Parallel Serial
Voltage Booster	-	-	-	-	-	Tripler	Tripler
Oscillation Circuits	Ext R	Ext CLK	Ext CLK	Ext CLK	Ext R	CR on chip	CR on chip
Bias Ratio	Ext	Ext	Ext	Ext	1/4	1/7	1/7
Electrical Variable	-	-	-	-	16 step	16 step	16 step
Duty	1/16,1/32	1/16,1/32	1/16,1/32	1/16,1/32	1/8,1/9,1/10	1/32,1/33	1/32,1/33

No. Item \ Type	NJU6675	NJU6576	NJU6580	NJU6583	NJU6673	NJU6674	NJU6676
Display Capacity	58cx96s	34cx101s	17cx96s	33cx96s	25cx100s	39cx132s	65cx132s
Extension Function	-	-	-	-	-	-	65cx264s
Logic Operating Voltage	2.4V-3.3V	2.2V-5.5V	2.4V-5.5V	2.4V-5.5V	2.4V-5.5V	2.4V-3.3V	2.2V-5.5V
LCD Driving Voltage	10.0V	13.5V	10.0V	10.0V	10.0V	10.0V	18.0V
DD RAM Size	5,568	3,434	1,904	3,696	2,500	5,148	8,580
Interface	Parallel Serial	I ² C Bass	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial
Voltage Booster	Tripler	-	Tripler	Tripler	Tripler	Booster x 4	Booster x 4
Oscillation Circuits	CR on chip	CR on chip	Ext CLK	Ext CLK	CR on chip	CR on chip	CR on chip
Bias Ratio	1/8	1/5,1/7	1/5	1/5	1/6,1/5	1/6,1/5	1/7,1/9
Electrical Variable	16 step	-	32 step	32 step	16 step	64 step	64 step
Duty	1/58	1/17,1/34	1/16,1/17	1/32,1/33	1/15,1/25	1/39	1/65

No. Item \ Type	NJU6655	NJU6677	NJU6678V	NJU6679	NJU6680	NJU6682	
Display Capacity	65cx160s	88cx132s	104cx132s	128cx132s	128cx128s	160cx132s	
Extension Function	65cx320s	-	-	-	-	-	
Logic Operating Voltage	2.4-5.5V	2.5-3.3V	2.5-3.3V	2.4-3.6V	2.0-3.0V	2.4-3.3V	
LCD Driving Voltage	18.0V	18.0V	17.0V	18.0V	18.0V	18.0V	
DD RAM Size	10,400	15,840	21,120	25,344	32,768	84,480	
Interface	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial	Parallel Serial	
Voltage Booster	Booster x 4	Booster x 5	Booster x 5	Booster x 6	Booster x 6	Booster x 7	
Oscillation Circuits	CR on chip	CR on chip	CR on chip	CR on chip	CR on chip	CR on chip	
Bias Ratio	1/5,1/7,1/9	1/4 - 1/10	1/4 - 1/11	1/4 - 1/12	1/5 - 1/12	1/4 - 1/14	
Electrical Variable	64 step	201 step	201 step	201 step	64 step	201 step	
Duty	1/65	*	*	*	*	*	

* Partial Display Function to set one or two display areas on the screen with Automatic Duty cycle Ratio Selection.

LCD DRIVER/CONTROLLER SERIES LINE-UP

■ SELECTION GUIDE

Display	61 SEG	80 SEG	96 SEG	100 SEG	101 SEG	102 SEG	128 SEG	132 SEG	134 SEG	160 SEG
10 COM	-	-	NJU6538 NJU6539	-	-	-	-	-	-	-
16 COM	NJU6450A NJU6452A NJU6570 NJU6572	-	-	-	-	-	-	-	-	-
17 COM	-	-	NJU6580	-	-	-	-	-	-	-
25 COM	-	-	-	NJU6673	-	-	-	-	-	-
33 COM	-	-	NJU6583	-	-	NJU6578	-	-	NJU6575A	-
34 COM	-	-	-	-	NJU6576	-	-	-	-	-
39 COM	-	-	-	-	-	-	-	NJU6674	-	-
53 COM	-	NJU6577	-	-	-	-	-	-	-	-
58 COM	-	-	NJU6675	-	-	-	-	-	-	-
65 COM	-	-	-	-	-	-	-	NJU6676	-	NJU6655
88 COM	-	-	-	-	-	-	-	NJU6677 *2	-	-
104 COM	-	-	-	-	-	-	-	NJU6678V *2	-	-
128 COM	-	-	-	-	-	-	NJU6680 *1,*2	NJU6679 *2	-	-
160 COM	-	-	-	-	-	-	-	NJU6682 *1,*2	-	-

*1 4-Gray Scale.

*2 Partial Display Function to set one or two display areas on the screen with Automatic Duty cycle Ratio Selection.

LCD DRIVER/CONTROLLER SERIES LINE-UP

(3) CHARACTER/SEGMENT TYPE LCD CONTROLLER DRIVER

■ LINE-UP

Type No.	FUNCTION	FEATURES	PACKAGE
NJU6460A	16-Character/1-line Dot Matrix LCD Controller Driver	<ul style="list-style-type: none"> ● LCD Driving Voltage 5.0V ● Shift Clock 2MHz ● Character Generator ROM 7,680bits ● Rectangle Outlook for COG 	BUMPED CHIP
NJU6408B NJU6468	8-character/2-line Dot Matrix LCD Controller Driver With Extension Function	<ul style="list-style-type: none"> ● The Display Capacity up to 40-character 2-line ● LCD Driving Voltage 13.5V ● Shift Clock 2MHz ● Character Generator ROM 12,000bits ● 3V Operation (NJU6468 only) 	CHIP QFP 80
NJU6420B	16-character/2-line Dot Matrix LCD Controller Driver	<ul style="list-style-type: none"> ● Voltage Doubler Incorporated ● Oscillation Circuit Incorporated (NJU6406B Require External Resistance or Ceramic Resonator) 	CHIP QFP 100
NJU6423B	20-character/2-line Dot Matrix LCD Controller Driver	<ul style="list-style-type: none"> ● Bleeder Resistance Incorporated (NJU6406B, NJU6425 and NJU6427 Required Bleeder Resist.) 	CHIP QFP 100
NJU6406B NJU6466	24-character/2-line Dot Matrix LCD Controller Driver	<ul style="list-style-type: none"> ● LCD Driving Voltage 13.5V ● Shift Clock 2MHz ● Character Generator ROM 9,600bits 	CHIP BUMPED CHIP
NJU6425	10-character/3-line Dot Matrix LCD Controller Driver With Icon Display and Extension Function	<ul style="list-style-type: none"> ● Operating Voltage 3V or 5V 5V(NJU6426 only) ● Extension Function(NJU6426 only) ● Icon Display Function(NJU6426 only) 	CHIP QFP 100
NJU6427	10-character/3-line+1segment Dot Matrix LCD Controller Driver With Icon Display and Extension Function	<ul style="list-style-type: none"> ● Low Power Consumption ● Hardware Reset Function(NJU6426 only) ● Duty Ratio Selection(except NJU6426) 	CHIP QFP 100
NJU6426	8-character/4-line Dot Matrix LCD Controller Driver With Icon Display and Extension Function		CHIP QFP 100
NJU6624A/B	12-Character/1-line Dot Matrix LCD Controller Driver With Smooth Scroll	<ul style="list-style-type: none"> ● LCD Driving Voltage 10.0V ● Serial Interface only 1MHz ● Character Generator ROM 7,840bits ● Icon Display Function Up to 60Icons ● Key Scan Function 	CHIP QFP 100
NJU6467	12-Character/1-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● LCD Driving Voltage 13.5V ● Serial Interface only 1MHz ● Character Generator ROM 7,680bits ● Icon Display Function Up to 60Icons ● Key Scan Function ● 3V Operation 	CHIP QFP 64
NJU6428/29 Series NJU6469 Series NJU6461	12-Character/1-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● Voltage Tripler Incorporated ● 3V Operation ● Extremely Low Operating Current ● Icon Display Function (Up to 60 Icons/NJU6428/29,NJU6469 and NJU6461) (Up to 100 Icons/NJU6424) (Up to 128 Icons/NJU6620) 	CHIP QFP 100
NJU6424	10-character/3-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● Hardware Reset 	BUMPED CHIP
NJU6620	12-Character/4-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● Bias Control Circuit of Voltage Follower On-Chip (NJU6424 only) ● Serial and parallel Direct Interface (NJU6461/NJU6620) ● Software Contrast Control (NJU6620 only) ● Com/Seg driver Location order Select Function (NJU6620 only) ● Rectangle outlook for COG(NJU6461/NJU6620) 	CHIP QFP 64
NJU6636	16-Character/2-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● Voltage Doubler Incorporated ● Operating Voltage 3V or 5V ● Serial and parallel Direct Interface ● Com/Seg driver Location order Select Function ● Software Contrast Control ● Rectangle outlook for COG 	BUMPED CHIP

- In case of the custom TCP, please consult with New Japan Radio about initial cost.

LCD DRIVER/CONTROLLER SERIES LINE-UP

Type No.	FUNCTION	FEATURES	PACKAGE
NJU6637	16-Character/3-line Dot Matrix LCD Controller Driver	<ul style="list-style-type: none"> ● 3V Operation ● LCD Driving Voltage 6V ● Serial Interface only 1MHz ● Character Generator ROM 10,200bits ● Rectangle Outlook for COG 	BUMPED CHIP
NJU6624C	14-character/1-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● LCD Driving Voltage 10V ● Serial Interface only 1MHz ● Character Generator ROM 7,840bits ● Icon Display Function Up to 70Icons ● Key Scan Function 	QFP 100
NJU6623A	15-character/1-line Dot Matrix LCD Controller Driver With Icon Display	<ul style="list-style-type: none"> ● LCD Driving Voltage 10V ● Serial Interface only 1MHz ● Character Generator ROM 7,840bits ● Icon Display Function Up to 75Icons ● General Output Port 	QFP 100
NJU6520	14-character/2-line Dot Matrix LCD Controller Driver With Icon Display and Smooth Scroll	<ul style="list-style-type: none"> ● Voltage Tripler Incorporated ● Logic Operating Voltage 3V ● Low Operating Current ● Icon Display Function Up to 84Icons ● Hardware Reset ● Serial Interface ● Software Contrast Control ● Smooth Scroll Function ● Rectangle outlook for COG 	BUMPED CHIP
NJU6470	16-character/1-line Dot Matrix LCD Controller Driver With Icon Display and Key Scan	<ul style="list-style-type: none"> ● Bleeder Resistance On-chip ● LCD Driving Voltage 5.0V ● Icon Display Function Up to 80Icons ● Hardware Reset ● Serial Interface Only ● Key Scan Function ● General Output Port 	CHIP QFP 100
NJU6407C NJU6407CR	Dot Matrix LCD 40-out Segment Driver	<ul style="list-style-type: none"> ● Shift Clock 3.3MHz ● Extension Driver ● Mirror Inversed Pin Configuration(NJU6407CR) 	CHIP QFP 56
NJU6417C	Dot Matrix LCD 64-out Segment Driver	<ul style="list-style-type: none"> ● Shift Clock 6MHz ● Extension Driver 	CHIP QFP 80
NJU6415/16 NJU6445/46	Dot Matrix LCD 80-out Segment Driver	<ul style="list-style-type: none"> ● Shift Clock 6MHz ● Extension Driver 	CHIP QFP 100

- In case of the custom TCP, please consult with New Japan Radio about initial cost.

LCD DRIVER/CONTROLLER SERIES LINE-UP

Type No.	FUNCTION	FEATURES	PACKAGE
NJU6432B	1/2 Duty LCD Driver	<ul style="list-style-type: none"> ● 53 Segment Drivers ● Duty Ratio 1/2 ; 104-Segment Drivers 	BUMPED CHIP CHIP QFP 64
NJU6533	1/3, 1/4 Duty LCD Driver	<ul style="list-style-type: none"> ● 32 Segment Drivers ● Programmable duty Ratio Duty Ratio 1/3 ; 96-Segment Drivers Duty Ratio 1/4 ; 128-Segment Drivers ● General Output Port 	QFN 48
NJU6433	1/4 Duty LCD Driver	<ul style="list-style-type: none"> ● 50 Segment Drivers ● Duty Ratio 1/4 ; 200-Segment Drivers 	BUMPED CHIP CHIP QFP 64
NJU6435 Series	1/2, 1/3 Duty LCD Driver With Key Scan	<ul style="list-style-type: none"> ● 40 Segment Drivers ● Duty Ratio Duty Ratio 1/2 ; 80-Segment Drivers Duty Ratio 1/3 ; 120-Segment Drivers ● 30 Key Scan Function (6-Out x5-In Matrix) 	BUMPED CHIP CHIP QFP 64
NJU6535	1/3, 1/4 Duty LCD Driver With Key Scan	<ul style="list-style-type: none"> ● 32 Segment Drivers ● Programmable duty Ratio Duty Ratio 1/3 ; 126-Segment Drivers Duty Ratio 1/4 ; 164-Segment Drivers ● 30 Key Scan Function (6-Out x5-In Matrix) ● General Output Port 	QFN 48
NJU6436	1/4 Duty LCD Driver With Key Scan	<ul style="list-style-type: none"> ● 60 Segment Drivers ● Duty Ratio 1/4 ; 240-Segment Drivers ● 30 Key Scan Function (6-Out x5-In Matrix) ● General Output Port ● Ir Receiving Function 	CHIP QFP 100
NJU6437	1/4 Duty LCD Driver	<ul style="list-style-type: none"> ● 32 Segment Drivers ● Duty Ratio 1/4 ; 128-Segment Drivers ● Rectangle outlook for COG 	BUMPED CHIP
NJU6438 NJU6439	1/4 Duty LCD Driver I ² C Bus Interface (NJU6438) Serial Interface (NJU6439)	<ul style="list-style-type: none"> ● 40 Segment Drivers ● Duty Ratio 1/4 ; 160-Segment Drivers ● I²C Bus Interface (NJU6438) ● Serial Interface (NJU6439) ● Rectangle outlook for COG 	BUMPED CHIP

- In case of the custom TCP, please consult with New Japan Radio about initial cost.

LCD DRIVER/CONTROLLER SERIES LINE-UP

■ SPECIFICATION COMPARATIVE TABLE

Type No. Item	NJU6460A	NJU6408B NJU6468	NJU6420B	NJU6423B	NJU6466 NJU6406B	NJU6425
Display Capacity	16Cx1L	8Cx2L	16Cx2L	20Cx2L	24Cx2L	10Cx3L
Extension Function	-	40Cx2L	-	-	-	-
LCD Driving Voltage	5.0V	13.5V	13.5V	13.5V	13.5V	13.5V
Oscillation Frequency	2MHz	2 MHz	2 MHz	2 MHz	2 MHz	2 MHz
CG ROM Size	7,680	12,000	9,600	9,600	9,600	9,600
Voltage Converter	-	-	Doubler	Doubler	Doubler	Doubler
Oscillation Circuits	Internal R Internal C	External R or Ceramic	Internal R Internal C	Internal R Internal C	External R or Ceramic	Internal R Internal C
Bleeder Resistance	On-chip	Ext	On-chip	On-chip	Ext	Ext
Icon Display Function	-	-	-	-	-	-
Character Font Size	5x7	5x7/5x10	5x7	5x7	5x7	5x7
Duty	1/16	1/8,1/11,1/16	1/16,1/32	1/16,1/32	1/16,1/32	1/16,1/32

Type No. Item	NJU6427	NJU6426	NJU6624A/B	NJU6467	NJU6428/29	NJU6469
Display Capacity	10Cx3L	8Cx4L	12Cx1L	12Cx1L	12Cx2L	12Cx2L
Extension Function	-	24Cx4L	-	-	-	-
LCD Driving Voltage	13.5V	13.5V	10.0V	13.5V	13.5V	10.0V
Oscillation Frequency	2 MHz	2 MHz	1 MHz	1 MHz	1 MHz	1 MHz
CG ROM Size	9,600	9,600	7,840	7,680	9,600	9,600
Voltage Converter	Doubler	Doubler	-	-	Tripler	Tripler
Oscillation Circuits	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C
Bleeder Resistance	Ext	On-chip	On-chip	On-chip	On-chip	On-chip
Icon Display Function	Use Segment	Have	Have	Have	Have	Have
Character Font Size	5x7	5x7	5x7	5x7	5x7	5x7
Duty	1/16,1/32	1/36	1/8	1/18	1/18,2/18	1/18,2/18

Type No. Item	NJU6461	NJU6424	NJU6620	NJU6623A	NJU6636	NJU6637
Display Capacity	12Cx2L	10Cx3L	12Cx4L	15Cx1L	16Cx2L	16Cx3L
Extension Function	-	-	-	-	-	-
LCD Driving Voltage	13.5V	13.5V	10.0V	10.0V	6.0V	6.0V
Oscillation Frequency	1 MHz	1 MHz	1 MHz	1 MHz	1 MHz	1 MHz
CG ROM Size	9,600	9,600	10,080	7,840	9,600	10,200
Voltage Converter	Tripler	Tripler	Tripler	-	-	-
Oscillation Circuits	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C	Internal R Internal C
Bleeder Resistance	On-chip	On-chip	On-chip	On-chip	On-chip	On-chip
Icon Display Function	Have	Have	Have	Have	Have	-
Character Font Size	5x7	5x7	5x7	5x7	5x7	5x7
Duty	1/18,2/18	1/26	1/36	1/8	1/17,1/9	1/24

LCD DRIVER/CONTROLLER SERIES LINE-UP

No. Item \ Type	NJU6624C	NJU6520	NJU6470
Display Capacity	14Cx1L	14Cx2L	16Cx1L
Extension Function	-	-	-
LCD Driving Voltage	10.0V	10.8V	7.0V
Oscillation Frequency	1 MHz	1 MHz	1 MHz
CG ROM Size	7,840	7,680	7,680
Voltage Converter	-	Tripler	-
Oscillation Circuits	Internal R Internal C	Internal R	External R
Bleeder Resistance	On-chip	On-chip	On-chip
Icon Display Function	Have	Have	Have
Character Font Size	5x7	5x7	5x7
Duty	1/8	1/9,1/18	1/18

LCD DRIVER/CONTROLLER SERIES LINE-UP

■ SELECTION GUIDE

• CHARACTER TYPE

Display	1 Line	2 Line	3 Line	4 Line
8 character	NJU6408B NJU6468	NJU6408B NJU6468	-	NJU6420B NJU6426
10 character	NJU6467 NJU6428/29 NJU6469	NJU6423B/BL/BS NJU6425 NJU6427	NJU6424 NJU6425 NJU6427	NJU6423B/BL/BS
12 character	NJU6467 NJU6428/29 NJU6469 NJU6624A/B	NJU6406B NJU6428/29 NJU6461 NJU6466 NJU6469	-	NJU6406B NJU6466 NJU6620
14 character	NJU6624C	NJU6520	-	-
15 character	NJU6623A	-	-	-
16 character	NJU6408B NJU6468 NJU6420B NJU6460A NJU6470	NJU6420B NJU6426 NJU6636	NJU6637	NJU6426+NJU6407C
20 character	NJU6423B/BL/BS	NJU6423B/BL/BS	-	NJU6426+NJU6417C
24 character	NJU6406B NJU6466 NJU6428/29 NJU6469	NJU6406B NJU6466	-	NJU6426+NJU6416
40 character	NJU6423B/BL/BS	NJU6408B+6407Cx4 NJU6468+6407Cx4	-	-
80 character	NJU6408B+6407Cx9 NJU6468+6407Cx9	-	-	-

• SEGMENT TYPE

Display	80 SEG	96 SEG	104 SEG	120 SEG	126 SEG	128 SEG	160 SEG	164 SEG	200 SEG	240 SEG
1/2 Duty	NJU6435	-	NJU6432B	-	-	-	-	-	-	-
1/3 Duty	-	NJU6533	-	NJU6435	NJU6535	-	-	-	-	-
1/4 Duty	-	-	-	-	-	NJU6533 NJU6437	NJU6438 NJU6439	NJU6535	NJU6433	NJU6436