

# Radial Leads/SkyCap®/SL Series



## GENERAL INFORMATION

### AVX SL Series

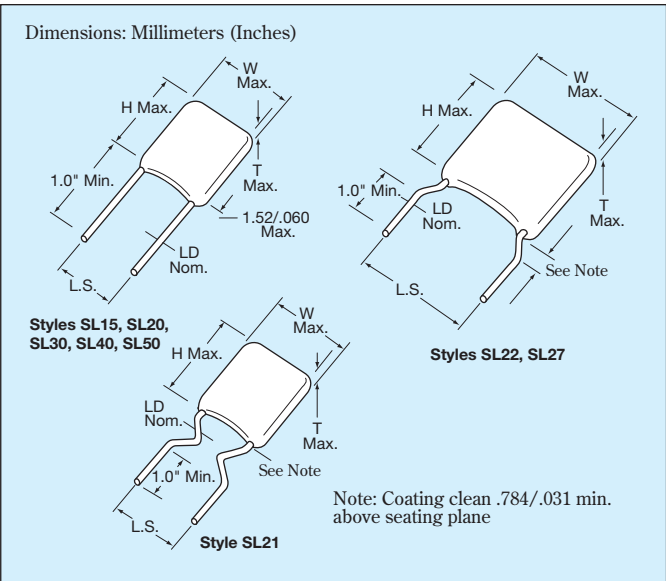
#### Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

200, 100, 50 Volts (300V, 400V & 500V also available)

Case Material: Epoxy

Lead Material: Solderable Sn/Pb



## HOW TO ORDER

| SL21                                                         | 5                                                                   | E                                   | 104                                                                                                                                                                                                                                   | M                                                                                                                                                                                                                                                                         | A                  | B                                  | TR1                                                                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVX Style                                                    | Voltage                                                             | Temperature Coefficient             | Capacitance                                                                                                                                                                                                                           | Capacitance Tolerance                                                                                                                                                                                                                                                     | Failure Rate       | Leads                              | Packaging                                                                                                                                                                               |
| SL15<br>SL20<br>SL21<br>SL22<br>SL27<br>SL30<br>SL40<br>SL50 | 5 = 50V<br>1 = 100V<br>2 = 200V<br>9 = 300V<br>8 = 400V<br>7 = 500V | A = C0G (NP0)<br>C = X7R<br>E = Z5U | First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF) | C0G (NP0):<br>C = $\pm 0.25\text{pF}$<br>D = $\pm 0.5\text{pF}$<br>F = $\pm 1\%$ (>50pF only)<br>G = $\pm 2\%$ (>25pF only)<br>J = $\pm 5\%$<br>K = $\pm 10\%$<br>X7R:<br>J = $\pm 5\%$<br>K = $\pm 10\%$<br>M = $\pm 20\%$<br>Z5U:<br>M = $\pm 20\%$<br>Z = $+80\%$ -20% | A = Not Applicable | B = Leads Sn/Pb (Tin lead product) | Blank = Bulk Packaging<br>T = Trimmed Leads .230" $\pm$ .030"<br>Bulk packaging<br>TR1 = Tape and Reel Packaging<br>AP1 = Ammopack Packaging<br>See packaging specification page 33-34. |

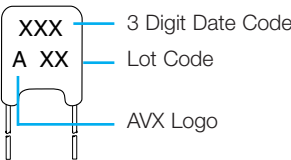
Not RoHS Compliant

## MARKING

### FRONT



### BACK



## PACKAGING REQUIREMENTS

|                          | Quantity per Bag |
|--------------------------|------------------|
| SL15, 20, 21, 22, 27, 30 | 1000 Pieces      |
| SL40, 50                 | 500 Pieces       |

Note: SL15, SL20, SL21, SL30, and SL40 available on tape and reel per EIA specifications RS-468. See Pages 33 and 34.

# Radial Leads/SkyCap®/SL Series



C0G (NP0) Dielectric

## SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style                                         |                                                    | SL15               |  |  | SL20               |  |  | SL21               |  |  | SL22               |  |  | SL27               |  |  | SL30           |  |  | SL40            |  |  | SL50            |  |  |
|---------------------------------------------------|----------------------------------------------------|--------------------|--|--|--------------------|--|--|--------------------|--|--|--------------------|--|--|--------------------|--|--|----------------|--|--|-----------------|--|--|-----------------|--|--|
| AVX “Insertable”                                  |                                                    | SL07               |  |  | SL29               |  |  | SL59               |  |  | N/A                |  |  | N/A                |  |  | SL65           |  |  | SL75            |  |  | N/A             |  |  |
| Width (W)                                         |                                                    | 3.81<br>(.150)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 6.604<br>(.260)    |  |  | 7.62<br>(.300) |  |  | 10.16<br>(.400) |  |  | 12.70<br>(.500) |  |  |
| Height (H)                                        |                                                    | 3.81<br>(.150)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 6.35<br>(.250)     |  |  | 7.62<br>(.300) |  |  | 10.16<br>(.400) |  |  | 12.70<br>(.500) |  |  |
| Thickness (T)                                     |                                                    | 2.54<br>(.100)     |  |  | 3.175<br>(.125)    |  |  | 3.175<br>(.125)    |  |  | 3.175<br>(.125)    |  |  | 4.06<br>(.160)     |  |  | 3.81<br>(.150) |  |  | 3.81<br>(.150)  |  |  | 5.08<br>(.200)  |  |  |
| Lead Spacing (L.S.)                               |                                                    | 2.54<br>(.100)     |  |  | 2.54<br>(.100)     |  |  | 5.08<br>(.200)     |  |  | 6.35<br>(.250)     |  |  | 7.62<br>(.300)     |  |  | 5.08<br>(.200) |  |  | 5.08<br>(.200)  |  |  | 10.16<br>(.400) |  |  |
| Lead Diameter (L.D.)                              |                                                    | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020) |  |  | .508<br>(.020)  |  |  | .635<br>(.025)  |  |  |
| Cap. in.* Industry Preferred<br>pF Values in Blue |                                                    | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>100 50 |  |  | WVDC<br>100 50  |  |  | WVDC<br>100 50  |  |  |
| 1.0-9.9<br>10<br>15                               | SL151A1R0DAB<br>SL151A100KAB<br>SL-----A150KAB     |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 22<br>33<br>39                                    | SL-----A220KAB<br>SL-----A330KAB<br>SL-----A390KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 47<br>68<br>100                                   | SL-----A470KAB<br>SL-----A680KAB<br>SL151A101KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 150<br>220<br>330                                 | SL-----A151KAB<br>SL-----A221KAB<br>SL-----A331KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 390<br>470<br>680                                 | SL-----A391KAB<br>SL-----A471KAB<br>SL-----A681KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 1000<br>1500<br>2200                              | SL211A102KAB<br>SL-----A152KAB<br>SL-----A222KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 3900<br>4700<br>6800                              | SL-----A392KAB<br>SL-----A472KAB<br>SL-----A682KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 8200<br>10,000<br>15,000                          | SL-----A822KAB<br>SL305A103KAB<br>SL-----A153KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 22,000<br>33,000<br>39,000                        | SL-----A223KAB<br>SL-----A333KAB<br>SL-----A393KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 47,000<br>68,000<br>100,000                       | SL-----A473KAB<br>SL-----A683KAB<br>SL-----A104KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

 = Industry preferred values  
 = SL20 only

**NOTE:** Capacitance Ranges available for SL12 same as SL15  
 SL62 same as SL21  
 SL64 same as SL30  
 SL89 same as SL21



# Radial Leads/SkyCap®/SL Series



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style               | SL15                                 | SL20               | SL21            | SL22            | SL27               | SL30           | SL40            | SL50               |  |  |                    |  |  |                    |  |  |  |
|-------------------------|--------------------------------------|--------------------|-----------------|-----------------|--------------------|----------------|-----------------|--------------------|--|--|--------------------|--|--|--------------------|--|--|--|
| AVX “Insertable”        | SL07                                 | SL29               | SL59            | N/A             | N/A                | SL65           | SL75            | N/A                |  |  |                    |  |  |                    |  |  |  |
| Width<br>(W)            | 3.81<br>(.150)                       | 5.08<br>(.200)     | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.604<br>(.260)    | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500)    |  |  |                    |  |  |                    |  |  |  |
| Height<br>(H)           | 3.81<br>(.150)                       | 5.08<br>(.200)     | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.35<br>(.250)     | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500)    |  |  |                    |  |  |                    |  |  |  |
| Thickness<br>(T)        | 2.54<br>(.100)                       | 3.175<br>(.125)    | 3.175<br>(.125) | 3.175<br>(.125) | 4.06<br>(.160)     | 3.81<br>(.150) | 3.81<br>(.150)  | 5.08<br>(.200)     |  |  |                    |  |  |                    |  |  |  |
| Lead Spacing<br>(L.S.)  | 2.54<br>(.100)                       | 2.54<br>(.100)     | 5.08<br>(.200)  | 6.35<br>(.250)  | 7.62<br>(.300)     | 5.08<br>(.200) | 5.08<br>(.200)  | 10.16<br>(.400)    |  |  |                    |  |  |                    |  |  |  |
| Lead Diameter<br>(L.D.) | .508<br>(.020)                       | .508<br>(.020)     | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020)     | .508<br>(.020) | .508<br>(.020)  | .635<br>(.025)     |  |  |                    |  |  |                    |  |  |  |
| Cap. in.*<br>pF         | Industry Preferred<br>Values in Blue | WVDC<br>200 100 50 |                 |                 | WVDC<br>200 100 50 |                |                 | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  |  |
| 470                     | SL.....C471KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 1000                    | SL155C102KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 1500                    | SL.....C152KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 2200                    | SL.....C222KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 3300                    | SL.....C332KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 4700                    | SL.....C472KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 6800                    | SL.....C682KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 10,000                  | SL215C103KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 15,000                  | SL.....C153KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 22,000                  | SL.....C223KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 33,000                  | SL.....C333KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 47,000                  | SL.....C473KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 68,000                  | SL.....C683KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 100,000                 | SL215C104KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 150,000                 | SL.....C154KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 220,000                 | SL215C224KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 330,000                 | SL.....C334KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 390,000                 | SL.....C394KAB                       |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 470,000                 | SL305C474KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 1.0 uF                  | SL305C105KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 2.2 uF                  | SL405C225KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 2.7 uF                  | SL505C275KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 4.7 uF                  | SL505C475KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |
| 10.0 uF                 | SL655C106KAB                         |                    |                 |                 |                    |                |                 |                    |  |  |                    |  |  |                    |  |  |  |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

-  = Industry preferred values
-  = Extended range
-  = Extended range with 0.150" thickness maximum

# Radial Leads/SkyCap®/SL Series



## Z5U Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style                                         | SL15           | SL20            | SL21            | SL22            | SL27            | SL30           | SL40            | SL50            |
|---------------------------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| AVX "Insertable"                                  | SL07           | SL29            | SL59            | N/A             | N/A             | SL65           | SL75            | N/A             |
| Width (W)                                         | 3.81<br>(.150) | 5.08<br>(.200)  | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.604<br>(.260) | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500) |
| Height (H)                                        | 3.81<br>(.150) | 5.08<br>(.200)  | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.35<br>(.250)  | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500) |
| Thickness (T)                                     | 2.54<br>(.100) | 3.175<br>(.125) | 3.175<br>(.125) | 3.175<br>(.125) | 4.06<br>(.160)  | 3.81<br>(.150) | 3.81<br>(.150)  | 5.08<br>(.200)  |
| Lead Spacing (L.S.)                               | 2.54<br>(.100) | 2.54<br>(.100)  | 5.08<br>(.200)  | 6.35<br>(.250)  | 7.62<br>(.300)  | 5.08<br>(.200) | 5.08<br>(.200)  | 10.16<br>(.400) |
| Lead Diameter (L.D.)                              | .508<br>(.020) | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020) | .508<br>(.020)  | .635<br>(.025)  |
| Cap. in.* Industry Preferred<br>pF Values in Blue | WVDC<br>100 50 | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50 | WVDC<br>100 50  | WVDC<br>100 50  |
| 10,000 SL155E103ZAB                               |                |                 |                 |                 |                 |                |                 |                 |
| 47,000 SL.....E473ZAB                             |                |                 |                 |                 |                 |                |                 |                 |
| 100,000 SL215E104ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 150,000 SL.....E154ZAB                            |                |                 |                 |                 |                 |                |                 |                 |
| 220,000 SL215E224ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 330,000 SL215E334ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 470,000 SL215E474ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 680,000 SL.....E684ZAB                            |                |                 |                 |                 |                 |                |                 |                 |
| 1.0 µF SL.....105ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 1.5 µF SL30E155ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 2.2 µF SL30E225ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 3.3 µF SL30E335ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 4.7 µF SL30E475ZAB                                |                |                 |                 |                 |                 |                |                 |                 |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

|                                                                                     |                             |
|-------------------------------------------------------------------------------------|-----------------------------|
|  | = Industry preferred values |
|  | = SL20 only                 |

### AVX 500 VOLT SKYCAPS\*\*

| STYLE* | MAXIMUM CAPACITANCE VALUE |         |
|--------|---------------------------|---------|
|        | C0G (NP0)                 | X7R     |
| SL29   | 900 pF                    | .015 µF |
| SL20   | 1800 pF                   | .033 µF |
| SL28   | 900 pF                    | .015 µF |
| SL59   | 900 pF                    | .015 µF |
| SL13   | 1800 pF                   | .033 µF |
| SL21   | 1800 pF                   | .033 µF |
| SL30   | 7200 pF                   | .12 µF  |
| SL61   | 7200 pF                   | .12 µF  |
| SL65   | 7200 pF                   | .12 µF  |
| SL40   | .015 µF                   | .27 µF  |
| SL75   | .015 µF                   | .27 µF  |
| SL22   | 1800 pF                   | .033 µF |
| SL27   | 1800 pF                   | .033 µF |
| SL76   | .015 µF                   | .27 µF  |
| SL50   | .036 µF                   | .59 µF  |

\*Consult pages 27 and 28 for style sizes.

\*\*Voltage rating based on DWV of 150% of rated voltage.



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## AVX:

[SL151A330JAB](#) [SL155E103MAB](#) [SL151C102KAB](#) [SL301A103JAB](#) [SL151A150JAB](#) [SL151C103KAB](#)  
[SL155C103KAB](#) [SL151A220JAB](#) [SL151A100JAB](#) [SL151A101JAB](#) [SL155C102KAB](#) [SL201A102JAB](#)  
[SL301E105MAB](#) [SL305C105KAB](#) [SL305C474KAB](#) [SL305E105MABTR1](#) [SL505C225KAB](#) [SL211A471JAB](#)  
[SL205E104MAB](#) [SL211C103KAB](#) [SL205C104MAB](#) [SL201E104MAB](#) [SL201C104KAB](#) [SL211C104KAB](#)  
[SL205E224MAB](#) [SL215C103KAB](#) [SL211C104KABTR1](#) [SL215C224KAB](#) [SL275E104MAB](#) [SL275C104KAB](#)  
[SL215E474MAB](#) [SL201A222JAB](#) [SL215C104KAB](#) [SL205C104KABTR1](#) [SL205C104KAB](#) [SL215C104KABTR1](#)  
[SL211A102KAB](#) [SL151A101KAB](#) [SL215A270JAB](#) [SL151E103MABTR2](#) [SL211A220JAB](#) [SL205C104JAB](#)  
[SL505E475MAB](#) [SL501A104JAB](#) [SL221A102JAB](#) [SL215C683KAB](#) [SL152A330KAB](#) [SL295E104MABTR1](#)  
[SL151A680KAB](#) [SL151C222KAB](#) [SL211C473KABTR13289](#) [SL201C104KABTR2](#) [SL621A102FABTR1](#)  
[SL205E474MAB](#) [SL301A103FAB](#) [SL201A122JAB](#) [SL221E104MAB](#) [SL305E105MAB](#) [SL201A102JABTR1](#)  
[SL211C222JAB](#) [SL305A103JAB](#) [SL301A183JAB](#) [SL307C104MAB](#) [SL215C153KAB](#) [SL155A100JAB](#)  
[SL211E104MAB](#) [SL301C334KAB](#) [SL151A680JAB](#) [SL225E474MAB](#) [SL215E334ZAB](#) [SL211C103KABTR2-85](#)  
[SL215C333JAB](#) [SL151A100JABTR1](#) [SL155E104MAB](#) [SL155C103MAB](#) [SL221C103MAB](#) [SL155A102KAB](#)  
[SL211C473KAB](#) [SL215E473MABTR1](#) [SL501A153KAB](#) [SL215C224KABTR1](#) [SL155E103ZAB](#) [SL215E334MABTR1](#)  
[SL211A222JAB](#) [SL215C222KAB](#) [SL215C104MAB](#) [SL502C474KAB](#) [SL215E104MAB](#) [SL215C473KAB](#)  
[SL305E225MAB](#) [SL215C154KAB](#) [SL307C103KAB](#) [SL152A4R7DAB](#) [SL151C271KAB](#) [SL302A103KAB](#)  
[SL151A471JAB](#) [SL305C474KABAP2](#) [SL505C475KAB](#) [SL215C104KABTR2](#) [SL211C333KAB](#)