| Models |  |  |  |
| :---: | :---: | :---: | :---: |
| Model name | Frequency bendutith | Input terminal | Max. sample ra |
| DLM2022 (710105) | 200 MHz | 2 analog channels | $\begin{gathered} 1.25 \mathrm{GS} / \mathrm{s} \\ \text { (interleave mode off) } \\ 2.5 \mathrm{GS} / \mathrm{s} \end{gathered}$interleave mode or |
| DLM2032 (71015) | ${ }^{350 \mathrm{MHz}}$ |  |  |
| DLM2052 (710125) | 500MHz |  |  |
| DLM2224 (710110) | ${ }^{2000 M H z}$ | 4 analog channels /3 analog channels + 8 bit logic |  |
| DLM 2 234 (710120) | ${ }^{3500 \mathrm{HHz}}$ |  |  |


| Basic Specitications |  |  |
| :---: | :---: | :---: |
|  |  |  |
| chan | Analog inp | DLM20x: $\mathrm{CHH}^{\text {che }}$ CH2 |
|  |  |  |
| Input coupling setting Input impedance |  | AC, DC, DC50 $\Omega$, GND |
|  | Analog input | $1 \mathrm{M} \Omega \pm 1.00 \%$ approximatey 20 pF |
| Voltage axis sensitivity setting range <br> Max. input voltage | $1 \mathrm{M} \Omega$ |  |
|  | $50 \Omega$ | 2 mVdiv to 500 mV Viv (steps of $1-2 \cdot \mathrm{~s}$ ) |
|  | $1 \mathrm{M} \Omega$ | 150 Vms (CATI) |
|  | $50 \Omega$ | Must not exceed 5 V Vms or 10 V veak |
| Max. DC offset setting range | 1 M 2 | $\pm 1 \mathrm{~V}$ ( $2 \mathrm{mV} /$ div to $50 \mathrm{mV} / \mathrm{div}$ ) <br> $\pm 10 \mathrm{~V}$ ( $100 \mathrm{mV} /$ div to $500 \mathrm{mV} /$ div) |
|  |  |  |
|  | $50 . \Omega$ | $\pm 1 \mathrm{~V}$ ( $2 \mathrm{mV} /$ div to $50 \mathrm{mV} / \mathrm{div}$ ) <br> $\pm 5 \mathrm{~V}$ ( $100 \mathrm{mV} / \mathrm{div}$ to $500 \mathrm{mV} / \mathrm{div}$ ) |
| DC accuracy* ${ }^{* 1}$ <br> Offset voltage accuracy* |  | $\pm(1.5 \%$ of div + offset voltage accuray) |
|  | 2 mv to 50 mV div |  |
|  | 100 mV 10.500 mV Viv |  |
|  | 1 V to 10 V/div | $\pm(1 \%$ of seting $+20 \mathrm{mV})$ |
| Fiequency characters | $5(-3$ dB ateruatio | en inputing a sinewave of amplifude |
| (When using passive probe) |  |  |
|  | 100 mv to 100 V Viv | DC to 200 MHz DC to 350 MHz DC 10500 MHz |
| $50 \Omega$ | mvt 050 mVdiv | DCto 150 MHz DC to 300 MHz DCto 0400 MHz |
|  | 10 mV to $10 \mathrm{~V} / \mathrm{div}$ | DC to 200 MHz DC to 350 MHz DC to 500 MHz |
| Isolation between channels |  | -34 dB® analog bandwidth (tyical value) |
| Resicual noise levele ${ }^{\text {a }}$ |  | The larger of 0.4 mV ms or 0.05 div ms (typical value) |
| resolution |  | 8bit (25LSEBdiv) |
| Bandwidh limit |  | Max. 12 bit (it High Resolution mode) |
|  |  |  |
|  |  | $62.5 \mathrm{kHz}, 32 \mathrm{kHz}, 16 \mathrm{kHz}, 8 \mathrm{kHz}$ |
|  | Maximum sample rate |  |  |
|  |  |  |  |
| Real time sampling mode | Interleave ON | ${ }_{2.59 \mathrm{Sl} / \mathrm{s}}$ |
| Repentive sampling modeMeximum reord lengt |  | $125 \mathrm{GS} / \mathrm{s}$ |
|  | 2 c | RepeaatSinglelsingle Intereave: |
|  |  |  |
|  | 2 ch model (M1s) |  |
|  | 4 ch model | Repeatsinglesingle intereave: |
|  | (Standara) | 1.25 M 6.25 M 1.2 .5 MPPoints |
|  | ${ }^{4} \mathrm{Ch}$ model | Repeausinglelesingil Intereave: |
|  | 4 ch model | Repeavsinielesinge in |
|  | (M2) | ${ }^{12.5} \mathbf{1 2} \mathbf{M} 62$ |
| ${ }_{\text {Chentoch destew }}^{\text {Cime }}$ |  | $\pm 100 \mathrm{~ns}$ |
| Time axis seting range |  |  |
| Max.açusustion ${ }^{\text {atece** }}$ |  | Approx.20,000 wavelormsecclch |
|  |  | ccumulation mode) |
| Dead time in N Single mode |  | (approx. 450,000 waveforms/sec/ch) |
| Logic Signal nout (4 ch model only) |  |  |
| Number of inputs |  | 8 bit excl. 4 ch inut and logic inut) Model 701988 : 10 MHHz |
|  |  | Model $701989: 250 \mathrm{MHz}$ |
| Compatiole probes |  | 701988, 701989 (8 bit input) <br> 701988, (701980, 701981 are available) |
| Min. input oltage |  |  |
| Input range |  | Model $701988: 440 \mathrm{~V}$ |
| ondestructive input voltage |  | V |
|  |  |  |
| Threshold level seting range |  |  |
| Inpu |  | 1988:Approx. 1 Msalapprox. 10 pF |
| Maximum sampling rate <br> Maximum record length |  | 1989:Approx. 100 k kzapprox. 3 PF |
|  |  | 1.25 MPoints, Single: 6.25 MPrants |
|  | /M1, /M1S option /M2 option <br> /M2 option | Repeat: 6.25 MPoints, Single: 25 MPoints Repeat: 12.5 MPoints, Single: 62.5 MPoints |




Model and Suffix Codes

| Model | Suffix code | Description |
| :---: | :---: | :---: |
| 710105 |  | Digital Oscilloscope DLM2022 2ch, 200MHz |
| $710110^{-1}$ |  | Mixed Signal Oscilloscope DLM2024 4ch, 200MHz |
| 710115 |  | Digital Oscilloscope DLM2032 2ch, 350MHz |
| $710120^{-1}$ |  | Mixed Signal Oscilloscope DLM2034 4ch, 350MHz |
| 710125 |  | Digital Oscilloscope DLM2052 2ch, 500MHz |
| $710130^{-1}$ |  | Mixed Signal Oscilloscope DLM2054 4ch, 500MHz |
| Power cable | -D | UL/CSA standard |
|  | -F | VDE standard |
|  | -Q | BS standard |
|  | -R | AS standard |
|  | - H | GB standard |
| Help language | -HE | English Help (Menu and Panel) |
|  | -HC | Chinese Help (Menu and Panel) |
|  | -HK | Korean Help (Menu and Panel) |
|  | -HG | German Help (Menu and Panel) |
|  | -HF | French Help (Menu and Panel) |
|  | -HI | Italian Help (Menu and Panel) |
|  | -HS | Spanish Help (Menu and Panel) |
| Option | /LN | No switchable logic input (4 ch model only) |
|  | /B5 | Built-in printer |
|  | /M1 ${ }^{\text {2 }}$ | "Memory expansion option (4 ch model only) <br> During continuous measurement: 6.25 Mpoints; Single mode: 25 Mpoints (when interleave mode ON: 62.5 Mpoints)" |
|  | /M2 ${ }^{\text {2 }}$ | "Memory expansion option (4 ch model only) <br> During continuous measurement: 12.5 Mpoints; Single mode: 62.5 Mpoints (when interleave mode ON: 125 Mpoints)" |
|  | /M1S | "Memory expansion option (2 ch model only) <br> During continuous measurement: 6.25 Mpoints; Single mode: 25 Mpoints (when interleave mode ON: 62.5 Mpoints)" |
|  | /P2 ${ }^{-3}$ | Probe power for 2 ch models |
|  | /P4 ${ }^{\text {-3 }}$ | Probe power for 4 ch models |
|  | /C1 ${ }^{-4}$ | GP-IB Interface |
|  | /C10 ${ }^{\text {a }}$ | Ethernet Interface |
|  | /C11 ${ }^{\text {/4 }}$ | GP-IB + Ethernet Interface |
|  | /G2 ${ }^{\text {/5 }}$ | User defined math (4 ch model only) (Release soon) |
|  | /G4 ${ }^{\text {-5 }}$ | "Power supply analysis function (includes /G2) (4 ch model only) (Release soon)" |
|  | /F1 ${ }^{16}$ | UART trigger and analysis (4 ch model only) |
|  | /F2 ${ }^{\text {c/ }}$ | $I^{2} \mathrm{C}+$ SPI trigger and analysis (4 ch model only) |
|  | /F3 ${ }^{\text {6 }}$ | UART + I ${ }^{2} \mathrm{C}+$ SPI trigger and analysis (4 ch model only) |
|  | /F4 | CAN + LIN trigger and analysis (4 ch model only) |

1: Logic probes sold separately. Please order the model 701988/701989 accessory logic probes separately.
*2: Only one of these may be selected at a time.
*3: Specify this option when using current probes or other differential probes such as models 701920 or 701922.
${ }^{*} 4$ : Only one of these may be selected at a time.
${ }^{*} 6$ : Only one of these may be selected at a time

| Standard Main Unit Accessories |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Name |  |  | Quantity |
| Power cord (with 3-prong to 2-prong adapter) |  |  | 1 |
| "Passive probe, model 701938 ( $200 \mathrm{MHz}, 1.5 \mathrm{~m}$ ) For models 710105, 710110" |  |  | Per number of channels |
| "Passive probe, model 701939 ( $500 \mathrm{MHz}, 1.3 \mathrm{~m}$ ) For models 710115, 710120, 710125, 710130" |  |  | Per number of channels |
| Protective front cover |  |  | 1 |
| Soft carrying case for probes |  |  | 1 |
| Printer roll paper (for /B5 option) |  |  | 1 roll |
| User's manuals |  |  | 1 set |
| Accessory Models |  |  |  |
| Name | Model | Specification |  |
| Logic probe (PBL100) | 701988 | $1 \mathrm{M} \Omega$ input resistance, toggle frequency of 100 MHz |  |
| Logic probe (PBL250) | 701989 | $100 \mathrm{k} \Omega$ input resistance, toggle frequency of 250 MHz |  |
| Passive probe | 701938 | $10 \mathrm{M} \Omega$ ( $10: 1$ ), $200 \mathrm{MHz}, 1.5 \mathrm{~m}$ |  |
| Passive probe | 701939 | $10 \mathrm{M} \Omega$ ( $10: 1$ ), $500 \mathrm{MHz}, 1.2 \mathrm{~m}$ |  |
| FET Pprobe | 700939 | DC to 900 MHz bandwidth/2.5M $/ 1.8 \mathrm{pF}$ |  |
| Active probe (PBA1000) | 701912 | DC to 1 GHz bandwidth/100k $/$ /0.9pF |  |
| 100:1 voltage probe | 701944 | DC to $400 \mathrm{MHz}, 1.2 \mathrm{~m}, 1000 \mathrm{Vrms}$ |  |
| 100:1 voltage probe | 701945 | DC to 250 MHz , $3 \mathrm{~m}, 1000 \mathrm{Vrms}$ |  |
| Differential probe | 701921 | DC to 100 MHz bandwidth/max. $\pm 700 \mathrm{~V}$ |  |
| Differential probe | 701922 | DC to 200 MHz bandwidth/max. $\pm 20 \mathrm{~V}$ |  |
| Differential probe (PBDH1000) | 701924 | DC to 1 GHz bandwidth/1M $/$ /max. $\pm 25 \mathrm{~V}$ |  |
| Differential probe | 700924 | DC to 100 MHz bandwidth/max. $\pm 1400 \mathrm{~V}$ |  |
| Differential probe | 700925 | DC to 15 MHz bandwidth/max. $\pm 500 \mathrm{~V}$ |  |
| Differential probe | 701920 | DC to 500 MHz bandwidth/max. $\pm 12 \mathrm{~V}$ |  |
| Current probe (PBC050) | 701929 | DC to 50 MHz bandwidth, 30 Arms |  |
| Current probe (PBC100) | 701928 | DC to 100 MHz bandwidth, 30 Arms |  |
| Current probe | 701930 | DC to 10 MHz bandwidth, 150 Arms |  |
| Current probe | 701931 | DC to 2 MHz bandwidth, 500 Arms |  |
| Mini clip converter | 700971 | For models 701938 and 701939 |  |
| BNC adapter | 700972 | For models 701938 and 701939 |  |
| PCB adapter | 366945 | For models 701938 and 701939, 10 per set |  |
| Solder-in adapter | 366946 | For models 701938 and 701939, 1 adapter, red/black cables (3 ea.) |  |
| Printer roll paper | B9988AE | Lot size is 10 rolls, 10 meters each |  |
| Xviewer | 701992-SP01 | For DL/WE series, standard version |  |
|  | 701992-GP01 | For DL/WE series, with MATH functions |  |
| Probe stand | 701919 | Round base, 1 arm |  |
| Carrying case | 701964 | Also for DL1600/DL1700E series |  |

## NOTE "Before operating the product, read the users manual thoroughly for proper and safe operation."

## Yokogawa's Approach to Preserving the Global Environment

- Yokogawa's electrical products are deloped and produced in facilities that have received ISO14001 approval.
- In order to protect the glovel environment, Yokogawa's electrical products are designed in accordance with Yokogawa's Environmentally Friendy Product Desigh Guidelines and Product Design Assessment Criteria.

