

ALV-5000/60X0

Multiple Tau Digital Correlator Series

ALV-5000/60X0 Multiple Tau Di

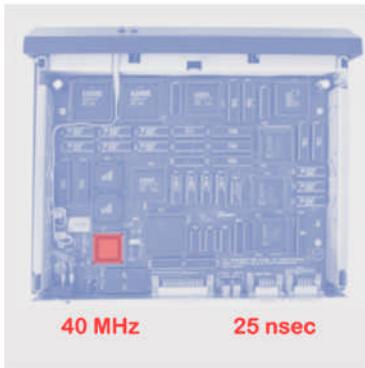
ALV®

ALV-60X0

Multiple Tau

Digital Correlator Series

ALV-6000



ALV-6000 MULTIPLE TAU DIGITAL CORRELATOR

including Software as MS-WINDOWS Version

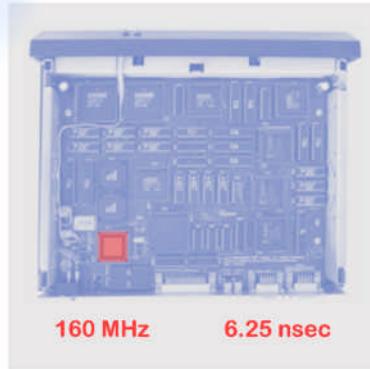
- based on ALV-MTCF, an ALV proprietary digital correlator ASIC
- Multiple Tau Digital Correlator,
- 100% real-time correlation from initial 25 nsec on
- Correlation modes:
 - SINGLE MODE (AUTO/CROSS) initial STC 125 nsec
 - DUAL MODE (AUTO/CROSS) initial STC 250 nsec
 - FAST MODE (CROSS/PSEUDOCROSS) initial STC 25 nsec
- additional output of count rate trace to hard disk at:
 - SINGLE MODE 0.256 msec intervall time
 - DUAL MODE 0.512 msec intervall time
 - FAST MODE 0.4096 msec intervall time
- up to 304 correlation channels
- Symmetric Normalization
- external housing, EPP via PCI-board connection to PC

ALV-6010 / 160

ALV-6010 / 160 MULTIPLE TAU DIGITAL CORRELATOR

including Software as MS-WINDOWS Version

- based on ALV-MTCF, an ALV proprietary digital correlator ASIC
- High Performance Multiple Tau Digital Correlator,
- 100% real-time correlation from initial 6.25 nsec on
- Correlation modes:
 - SINGLE MODE (AUTO/CROSS) initial STC 125 nsec
 - DUAL MODE (AUTO/CROSS) initial STC 250 nsec
 - FAST MODE (CROSS/PSEUDOCROSS) initial STC 6.25 nsec
- additional output of count rate trace to hard disk at:
 - SINGLE MODE 0.256 msec intervall time
 - DUAL MODE 0.512 msec intervall time
 - FAST MODE 0.4096 msec intervall time
- up to 328 correlation channels
- Symmetric Normalization
- external housing, EPP via PCI-board connection to PC

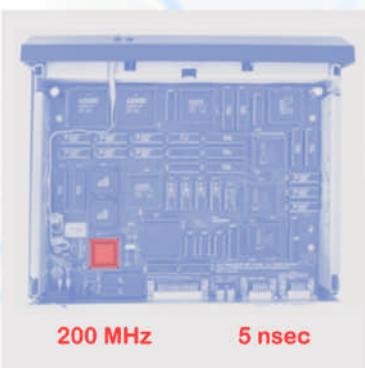


ALV-6010 / 200

ALV-6010 / 200 MULTIPLE TAU DIGITAL CORRELATOR

including Software as MS-WINDOWS Version

- based on ALV-MTCF, an ALV proprietary digital correlator ASIC
- Super High Performance Multiple Tau Digital Correlator,
- 100% real-time correlation from initial 5 nsec on
- Correlation modes:
 - SINGLE MODE (AUTO/CROSS) initial STC 125 nsec
 - DUAL MODE (AUTO/CROSS) initial STC 250 nsec
 - FAST MODE (CROSS/PSEUDOCROSS) initial STC 5 nsec
- additional output of count rate trace to hard disk at:
 - SINGLE MODE 0.256 msec intervall time
 - DUAL MODE 0.512 msec intervall time
 - FAST MODE 0.3276 msec intervall time
- up to 328 correlation channels
- Symmetric Normalization
- external housing, EPP via PCI-board connection to PC

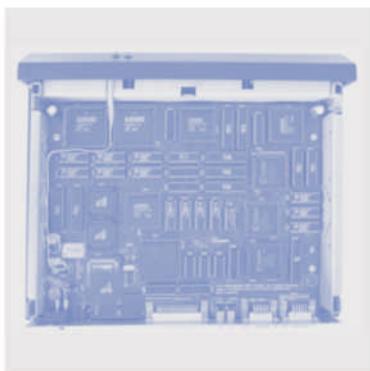




ALV-5000/EPP

Multiple Tau Digital Correlator Series

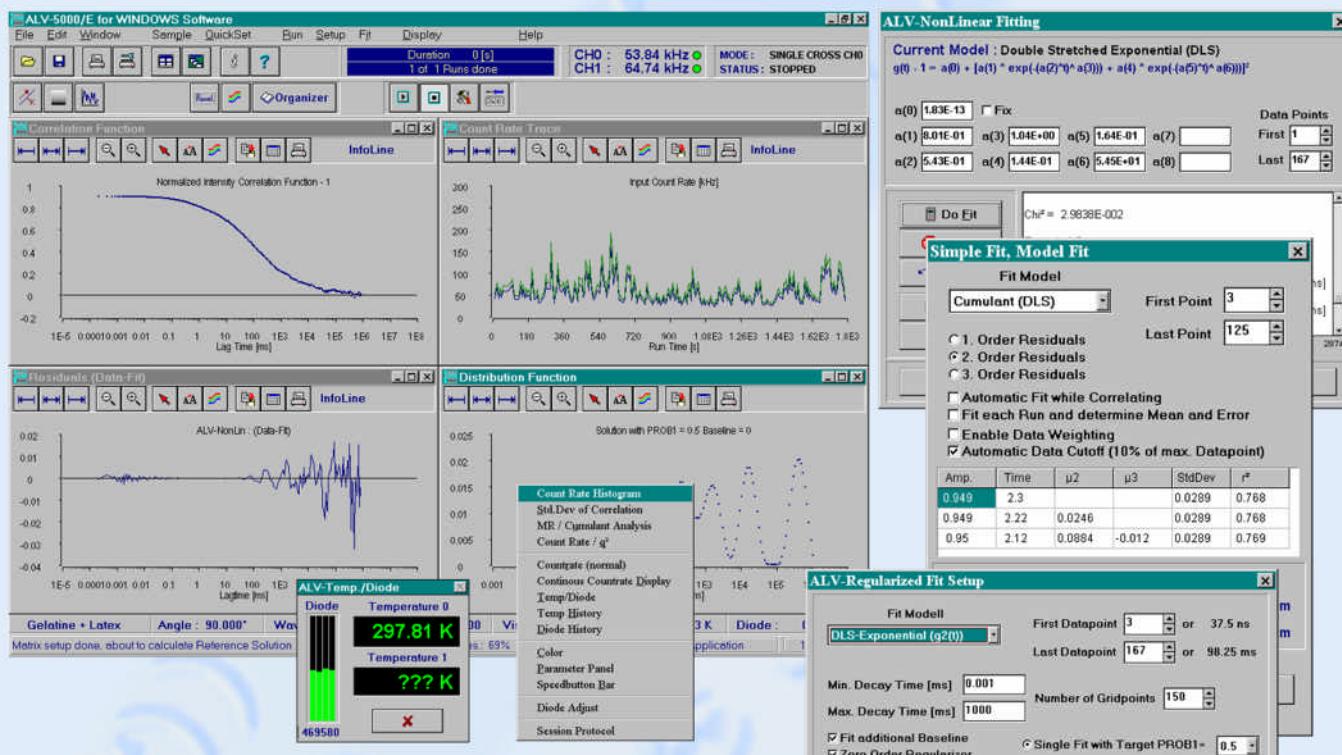
ALV-5000/EPP



ALV-5000/EPP MULTIPLE TAU DIGITAL CORRELATOR including Software as MS-WINDOWS Version

- Multiple Tau Digital Correlator
- 100% real-time correlation from initial 125 nsec on
- Correlation modes:
 SINGLE MODE (AUTO/CROSS) initial STC 125 nsec
 DUAL MODE (AUTO/CROSS) initial STC 250 nsec
 additional output of count rate trace to hard disk at
 SINGLE MODE 0.256 msec intervall time
 DUAL MODE 0.512 msec intervall time
- up to 288 correlation channels
- Symmetric Normalization
- external housing, EPP via PCI-board connection to PC

ALV-5000/EPP and ALV-60X0 Correlator Software MS-WINDOWS® Version for WIN 95/98 and NT 4.0



Interactive software for MS-WINDOWS® designed for all type of correlation experiments and supplying on-line data display as well as data analysis (even during measurement). All control of the ALV Goniometer System for automatic angular dependent DLS and SLS Measurements is included.

Features:

- Live display of correlation function, count rate traces and probability, laser pointing stability, total intensity and sample temperature.
- QuickSets for fast access to parameter and experiment control menus to set up easily various applications, such as single- and multiangle particle sizing, Dynamic and Static Light Scattering, Diffusing Wave Spectroscopy, Fluorescence Correlation Spectroscopy (FCS), time resolved correlation measurements.
- CUMULANT data analysis; constrained regularization methods (similar to CONTIN) to find distribution of correlation times for field and intensity correlation function, nonlinear fitting routine for several model functions (exponential, stretched exponential and Schulz function, special functions for FCS).
- high quality b/w and color printout using the full printer resolution via the printer canvas.
- context sensitive help system, fast hints provided for all speedbuttons, switches and input lines.
- and much, much more ...

Please Download the Demo Version of this Software at www.alvgmbh.de

ALV-5000/EPP

ALV-60X0 Series

Technical Data

	ALV-5000/EPP	ALV-6000	ALV-6010/160	ALV-6010/200
Auto / Cross Correlation Mode		Yes		
SINGLE Mode, with 100% Real Time Efficiency		Yes, 125 nsec Initial Sampling Time		
DUAL Mode with 100% Real Time Efficiency		Yes, 250 nsec Initial Sampling Time		
FAST Mode with 100% Real Time Efficiency	No	Yes, 25 nsec Initial STC	Yes, 6.25 nsec Initial STC	Yes, 5 nsec Initial STC
Max. Number of Channels	288	312	328	328
Max. Number of Parallel Sampling Times	35	38	40	40
Max. Sampling Time Range	125 ns ... 2147 s	25 ns ... 3435 s	6.25 ns ... 3435 s	5 ns ... 2749 s
Max. Lag Time Range	$1 : 2.75 \times 10^{11}$	$1 : 2.2 \times 10^{12}$	$1 : 8.8 \times 10^{12}$	$1 : 8.8 \times 10^{12}$
Correlation Channel Structure	ALV-16 / 8 Channel Multiple Tau Structure			
Pulse Counting Inputs	2 x TTL @ 50 Ohm min. 3 V Logic High Level max. 0.8 V Logic Low Level for FAST Mode, < 2.5 ns rise/fall time is required			
Max. Input Count Rate SINGLE / DUAL Mode	up to 80 MHz using Random Scaling Techniques (either automatic or user controllable)			
Max. unscaled Input Count Rate in SINGLE / DUAL Mode	sustained 2.5 MHz / 1.25 MHz without any Random Scaling Technique used			
Max. sustained Input Count Rate in FAST Mode	n.a.	max. 25 MHz	max. 25 MHz	max. 31.25 MHz
Counting Inputs for Temp./ Monitor Diode measurements	Yes, 5 Open Collector Inputs, TTL compatible			
EPP communication to PC	Yes, fully EPP compatible with > 1MByte/s sustained data transfer rate			
PCI based EPP board	Board, IEEE-1284 cable and driver software are part of the standard delivery			
AC/DC Power Supply	Standard delivery, Input 63 VAC ... 265 VAC, 50...60 Hz, Output +5.1 V, max 2A			
Power consumption on secundary side (+5V) (in full operation at 5V)	max. 4 W @ 5 V	max. 4.8 W @ 5V	max. 4.8 W @ 5 V	max. 5 W @ 5 V
Housing Size	280 mm (W) x 240 mm (L) x 50 mm (H)			
Weight	Approximately 2,0 kg			

For more information:

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