

MANUFACTURER	CALLUNA TECHNOLOGY	COMPAREX	COMPAREX	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CT-210	6490-A24 6490-A28 6490-B24 6490-B28 6490-B2C	6490-A34 6490-A38 6490-B34 6490-B38 6490-B3C	CFN-250A FilePro Notebook Trigger	CFN-250S FilePro Notebook Trigger
DISK/TREND GROUP	4	7	8	4	4
MARKET	OEM	PCM	PCM	OEM	OEM
MEDIA: Nominal disk diameter	48 mm OD	9.5"	9.5"	65 mm OD	65 mm OD
Recording medium	12 mm ID Thin Film	Oxide Coated	Oxide Coated	20 mm ID Thin Film	20 mm ID Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film, MIG	Thin Film, MIG
Interface	PCMCIA-ATA	IBM	IBM	PC AT	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	--	F: 1,892	F: 2,838	F: 252.7	F: 252.7
REMOVABLE	F: 210	--	--	--	--
Capacity per track (Bytes)	Varies by zone	F: 56,664	F: 56,664	Varies by zone	Varies by zone
Data surfaces per spindle	4	15	15	6	6
Tracks per surface	1602	2226	3339	1339	1339
Track density (TPI)	3600	*	*	2611	2611
Maximum linear density (BPI) (FCI)	111333 83500	*	*	58230 43684	58230 43684
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4800	4260	4260	4500	4500
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Linear, Voice Coil	Linear, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Dedicated Surf.	Dedicated Surf.	Embedded	Embedded
Average positioning time (msec)	16	10	12.5	12	12
Average rotational delay (msec)	6.25	7.1	7.1	6.7	6.7
Average access time (msec)	22.25	17.1	19.6	18.7	18.7
Data transfer rate (KBytes/sec)	11000	4200	4200	8000	6000 synch. 3000 asynch.
SIZE: (mm) H x W x D	10.5 x 54 x 85.6	--	--	19.5 x 69.8 x 101.6	19.5 x 69.8 x 101.6
FIRST CUSTOMER SHIPMENT	4Q94	4Q90	2Q92	4Q93	4Q93
COMMENTS	PCMCIA Type III	PCM 3390-2. Drive has 4,8, or 12 spindles. *Not announced. 2 heads/surface Mfr. by Hitachi	PCM 3390-3. Drive has 4,8, or 12 spindles. *Not announced. 2 heads/surface Mfr. by Hitachi		

RSPEC-11

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CFS-210A FilePro Bobcat	CFS-270A FilePro Cabo	CFA-340 FilePro II Advantage	CFA-425A FilePro Advantage Steamboat	CFA-425S FilePro Advantage Steamboat
DISK/TREND GROUP	4	4	5	5	5
MARKET	OEM	OEM	OEM	OEM, PCM	OEM, PCM
MEDIA: Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Thin Film, MIG	Thin Film, MIG	MIG	Thin Film	Thin Film
Interface	PC AT	PC AT	SCSI-2	PC AT	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 213.4	F: 270	F: 343	F: 426	F: 426
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	2	2	4	2	2
Tracks per surface	2388	2595	2111	3613	3613
Track density (TPI)	2774	2988	2553	3833	3833
Maximum linear density (BPI) (FCI)	58566 43924	68000 51000	56833 42622	77350 58012	77350 58012
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	3600	3400	4011	4500	4500
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	14	15	13	12	12
Average rotational delay (msec)	8.3	8.8	7.5	6.7	6.7
Average access time (msec)	22.3	23.8	20.5	18.7	18.7
Data transfer rate (KBytes/sec)	11100	11100 P10* 13300 DMA**	10000 synch.	16700 P10* 16700 DMA**	5000 synch. 2500 asynch.
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	4Q93	11/94		8/94	8/94
COMMENTS		*P10 Mode 3 **DMA Mode 1		*P10 Mode 4 M3=11.1 MB/sec **DMA Mode 2 M2=13.3 MB/sec.	

1994 DISK/TREND REPORT

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CFL-350A FilePro Notebook Trigger	CFL-420A FilePro Notebook Kiwi	CFN-340A FilePro Notebook Trigger	CFS-420A FilePro Bobcat	CFS-425A FilePro Cabo
DISK/TREND GROUP	5	5	5	5	5
MARKET	OEM	OEM	OEM	OEM	OEM
MEDIA: Nominal disk diameter	65 mm OD	65 mm OD	65 mm OD	95 mm OD	95 mm OD
Recording medium	20 mm ID Thin Film	20 mm ID Thin Film	20 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Thin Film	Thin Film, MIG	Thin Film, MIG	Thin Film, MIG	Thin Film, MIG
Interface	PC AT	PC AT	PC AT	PC AT	PC AT
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 350	F: 422	F: 344.5	F: 426.8	F: 425
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	4	4	6	4	2
Tracks per surface	2225	2393	1598	2388	3687
Track density (TPI)	4110	4200	3004	2774	3840
Maximum linear density (BPI) (FCI)	70600 52950	80000 60000	65564 49173	58566 43924	75000 57000
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	3750	3600	4000	3600	3600
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	12	12	13	14	15
Average rotational delay (msec)	8	8.3	6.7	8.3	8.3
Average access time (msec)	20	20.3	19.7	22.3	23.3
Data transfer rate (KBytes/sec)	11100 PIO*	11100 PIO*	8000	7500	11100 PIO* 13300 DMA**
SIZE: (mm) H x W x D	12.7 x 69.8 x 101.6	12.7 x 69.8 x 101.6	19.5 x 69.8 x 101.6	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	3Q94	1Q95	4Q93	4Q93	11/94
COMMENTS	*PIO Mode 3	*PIO Mode 3			*PIO Mode 3 **DMA Mode 1

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CFA-540A FilePro III Advantage	CFA-540S FilePro III Advantage	CFA-850A FilePro Advantage Steamboat	CFA-850S FilePro Advantage Steamboat	CFS-540A FilePro Cabo
DISK/TREND GROUP	6	6	6	6	6
MARKET	OEM	OEM	OEM, PCM	OEM, PCM	OEM
MEDIA: Nominal disk diameter Recording medium	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film
DRIVE: Heads Interface	Thin Film, MIG PC AT	Thin Film, MIG SCSI-2	Thin Film PC AT	Thin Film SCSI-2	Thin Film, MIG PC AT
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 541	F: 541	F: 852	F: 852	F: 541
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	4	4	4	4	4
Tracks per surface	2805	2805	3613	3613	2574
Track density (TPI)	3253	3253	3833	3833	2990
Maximum linear density (BPI) (FCI)	62500 46850	62500 46850	77350 58012	77350 58012	70000 52000
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4500	4500	4500	4500	3600
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	12	12	12	12	15
Average rotational delay (msec)	6.7	6.7	6.7	6.7	8.3
Average access time (msec)	18.7	18.7	18.7	18.7	23.3
Data transfer rate (KBytes/sec)	10000	10000 synch. 5000 asynch.	16700 PIO* 16700 DMA**	10000 synch. 5000 asynch.	11100 PIO* 13300 DMA**
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	4Q93	4Q93	8/94	8/94	11/94
COMMENTS			*PIO Mode 4 M3=11.1 MB/sec **DMA Mode 2 M1=13.3 MB/ sec.		*PIO Mode 3 **DMA Mode 1

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CFS-850A FilePro Cabo	CFA-1080A FilePro IV Advantage	CFA-1275A FilePro Advantage Steamboat	CFA-1275S FilePro Advantage Steamboat	CFP-1080E FilePro Performance Antiqua
DISK/TREND GROUP	6	7	7	7	7
MARKET	OEM	OEM	OEM, PCM	OEM, PCM	OEM
MEDIA: Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Thin Film, MIG	Thin Film, MIG	Thin Film	Thin Film	Thin Film, MIG
Interface	PC AT	PC AT	PC AT	SCSI-2	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 850	F: 1,080	F: 1,278	F: 1,278	F: 1,080
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	4	8	6	6	6
Tracks per surface	3687	2842	3613	3613	3658
Track density (TPI)	3833	3245	3833	3833	3833
Maximum linear density (BPI) (FCI)	75000 57000	65000 48740	77350 58012	77350 58012	64000 48000
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	3600	4500	4500	4500	5400
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	15	10.5	12	12	11
Average rotational delay (msec)	8.3	6.7	6.7	6.7	5.6
Average access time (msec)	23.3	17.2	18.7	18.7	16.6
Data transfer rate (KBytes/sec)	11100 PIO* 13300 DMA**	10000	16700 PIO* 16700 DMA**	10000 synch. 5000 asynch.	20000 synch.
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	11/94	4Q93	8/94	8/94	11/94
COMMENTS	*PIO Mode 3 **DMA Mode 1		*PIO Mode 4 M3=11.1 MB/sec **DMA Mode 2 M1=13.3 MB/ sec.		

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS
DRIVE	CFP-1080S FilePro Performance Antiqua	CFS-1275A FilePro Cabo	CFP-2105E CFP-2105S FilePro Performance Cayman	CFP-2105W FilePro Performance Cayman	CFP-2107E CFP-2107S FilePro Performance Cayman
DISK/TREND GROUP	7	7	8	8	8
MARKET	OEM	OEM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Nominal disk diameter Recording medium	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film	95 mm OD 25 mm ID Thin Film
DRIVE: Heads Interface	Thin Film, MIG SCSI-2	Thin Film, MIG PC AT	Thin Film SCSI-2	Thin Film SCSI-2	Thin Film SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 1,080	F: 1,278	F: 2,147	F: 2,147	F: 2,147
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	6	6	10	10	10
Tracks per surface	3658	3687	3892	3892	3924
Track density (TPI)	3833	3833	4030	4030	4010
Maximum linear density (BPI) (FCI)	64000 48000	75000 57000	78000 58500	78000 58500	78000 58500
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	5400	3600	5400	5400	7200
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	11	15	8.5 RD/9.0 WR	8.5 RD/9.0 WR	8.5 RD/9.0 WR
Average rotational delay (msec)	5.6	8.3	5.6	5.6	4.17
Average access time (msec)	16.6	23.3	14.1 RD/14.6 WR	14.1 RD/14.6 WR	12.67/13.17
Data transfer rate (KBytes/sec)	10000 synch.	11100 PIO* 13300 DMA**	20000 synch.	10000 synch.	20000 synch.
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	11/94	11/94	10/94	10/94	10/94
COMMENTS		*PIO Mode 3 **DMA Mode 1			

MANUFACTURER	CONNER PERIPHERALS	CONNER PERIPHERALS	CONNER PERIPHERALS	DIGITAL EQUIPMENT	DIGITAL EQUIPMENT
DRIVE	CFP-2107W FilePro Performance Cayman	CFP-4207E CFP-4207S FilePro Performance Cayman	CFP-4207W FilePro Performance Cayman	RF36	RZ26L
DISK/TREND GROUP	8	9	9	7	7
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	Captive	Captive
MEDIA: Nominal disk diameter	95 mm OD	95 mm OD	95 mm OD	95 mm OD	95 mm OD
Recording medium	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film	25 mm ID Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
Interface	SCSI-2	SCSI-2	SCSI-2	DSSI	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 2,147	F: 4,220	F: 4,220	F: 1,600	F: 1,050
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	10	20	20	16	8
Tracks per surface	3924	3924	3924	2651	3117
Track density (TPI)	4010	4055	4055	2756	3256
Maximum linear density (BPI) (FCI)	78000 58500	78000 58500	78000 58500	54100 40575	61509 46131
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	7200	7200	7200	5400	5400
PERFORMANCE					
Actuator type	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
Servo type	Embedded	Embedded	Embedded	Embedded	Embedded
Average positioning time (msec)	8.5 RD/9.0 WR	9.0 RD/9.5 WR	9.0 RD/9.5 WR	9.5	9.5
Average rotational delay (msec)	4.17	4.17	4.17	5.6	5.6
Average access time (msec)	12.67/13.17	13.17/13.67	13.17/13.67	15.1	15.1
Data transfer rate (KBytes/sec)	10000 synch.	21000 synch.	10000 synch.	4000	10000-20000 syn 5000-10000 asyn
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	41.3 x 101.6 x 146.1	41.3 x 101.6 x 146.1	41.3 x	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	10/94	10/94	10/94	5/93	10/93
COMMENTS					