

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	127A Daytona	127S Daytona	170A Daytona	170S Daytona	256A Daytona
DISK/TREND GROUP	3	3	3	3	4
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	65 mm	65 mm	65 mm	65 mm	65 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
Interface	IDE	SCSI-2	IDE	SCSI-2	IDE
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 127	F: 127	F: 170	F: 170	F: 256
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	3	3	4
Tracks per surface	1704	1704	1704	1704	1704
Track density (TPI)	3100	3100	3100	3100	3100
Maximum linear density (BPI) (FCI)	71600 53700	71600 53700	71600 53700	71600 53700	71600 53700
Areal density (Mb/square inch)	222.0	222.0	222.0	222.0	222.0
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4500	4500	4500	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)	17	17	17	17	17
Average rotational delay (msec)	6.7	6.7	6.7	6.7	6.7
Average access time (msec)	23.7	23.7	23.7	23.7	23.7
Data transfer rate (MBytes/sec) Internal, min/max External	2.7/4.5 11.1 PIO Mode 3 13.3 DMA Mode 1	2.7/4.5 10.0 synch.	2.7/4.5 11.1 PIO Mode 3 13.3 DMA Mode 1	2.7/4.5 10.0 synch.	2.7/4.5 11.1 PIO Mode 3 13.3 DMA Mode 1
SIZE: (mm) H x W x D	12.5 x 70 x 100	12.5 x 70 x 100	12.5 x 70 x 100	12.5 x 70 x 100	12.5 x 70 x 100
FIRST CUSTOMER SHIPMENT	1/94	1/94			1/94
COMMENTS					

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	256S Daytona	270A Maverick	270S Maverick	341A Daytona	341S Daytona
DISK/TREND GROUP	4	4	4	5	5
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	65 mm	95 mm	95 mm	65 mm	65 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
Interface	SCSI-2	IDE	SCSI-2	IDE	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 256	F: 270	F: 270	F: 341	F: 341
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	2	2	6	6
Tracks per surface	1704	2856	2856	1704	1704
Track density (TPI)	3100	2950	2950	3100	3100
Maximum linear density (BPI) (FCI)	71600 53700	60204 45266	60204 45266	71600 53700	71600 53700
Areal density (Mb/square inch)	222.0	177.6	177.6	222.0	222.0
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4500	3600	3600	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)	17	14	14	17	17
Average rotational delay (msec)	6.7	8.3	8.3	6.7	6.7
Average access time (msec)	23.7	22.3	22.3	23.7	23.7
Data transfer rate (MBytes/sec) Internal, min/max External	2.7/4.5 10.0 synch.	2.3/4.5 6.0	2.3/4.5 10.0 synch. 5.0 asynch.	2.7/4.5 11.1 PIO Mode 3 13.3 DMA Mode 1	2.7/4.5 10.0 synch.
SIZE: (mm) H x W x D	12.5 x 70 x 100	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	19 x 70 x 100	19 x 70 x 100
FIRST CUSTOMER SHIPMENT	1/94	6/94	6/94	1/94	1/94
COMMENTS					

## 1995 DISK/TREND REPORT

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	365A Lightning	365S Lightning	420A Trailblazer	420S Trailblazer	514A Daytona
DISK/TREND GROUP	5	5	5	5	6
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	65 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	MIG	MIG	Thin Film
Interface	IDE	SCSI-2	IDE	SCSI	IDE
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 365.7	F: 365.7	F: 420.97	F: 425.07	F: 514
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	2	2	8
Tracks per surface	3673	3673	3653	3653	1704
Track density (TPI)	3794	3794	3794	3794	3100
Maximum linear density (BPI) (FCI)	63515 47636	63515 47636	74258 55694	74258 55694	71600 53700
Areal density (Mb/square inch)	241.0	241.0	281.7	281.7	222.0
Recording code	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4500	4500	4500	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)	11	11	14	14	17
Average rotational delay (msec)	6.7	6.7	6.7	6.7	6.7
Average access time (msec)	17.7	17.7	20.7	20.7	23.7
Data transfer rate (MBytes/sec) Internal, min/max External	--/5.9 11.1 PIO Mode 3 13.3 DMA Mode 1	--/5.9 10.0 asynch. 6.0 synch.	--/6.7 16.6 PIO Mode 4 16.6 DMA Mode 2	--/6.7 10 synch. 6 asynch.	2.7/4.5 11.1 PIO Mode 3 13.3 DMA Mode 1
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	19 x 70 x 100
FIRST CUSTOMER SHIPMENT	4/94	4/94	5/95	5/95	1/94
COMMENTS					

## MANUFACTURER

## DRIVE

## DISK/TREND GROUP

## MARKET

## MEDIA: Disk diameter

Recording medium

## DRIVE: Heads

Interface

## CAPACITY/RECORDING DENSITY

Total capacity (Mbytes) FIXED

REMOVABLE

Capacity per track (Bytes)

Data surfaces per spindle

Tracks per surface

Track density (TPI)

Maximum linear density (BPI)  
(FCI)

Areal density (Mb/square inch)

Recording code

Rotational speed (RPM)

## PERFORMANCE

Actuator type

Servo type

Average positioning time (msec)

Average rotational delay (msec)

Average access time (msec)

Data transfer rate (MBytes/sec)  
Internal, min/max  
External

SIZE: (mm) H x W x D

FIRST CUSTOMER SHIPMENT

COMMENTS

	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
	514S Daytona	540A Fireball	540A Lightning	540A Maverick	540AT Europa
	6	6	6	6	6
	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
	65 mm	95 mm	95 mm	95 mm	65 mm
	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
	Thin Film	Thin Film	Thin Film	Thin Film	MR Thin Film
	SCSI-2	IDE	IDE	IDE	IDE
	F: 514	F: 544	F: 541.3	F: 540	F: 540
	--	--	--	--	--
	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
	8	2	3	4	4
	1704	3835	3673	2856	2925
	3100	4700	3794	2950	5300
	71600 53700	92982 98783	63515 47636	60204 45266	96373 108420
	222.0	437.0	241.0	177.6	510.8
	1,7 RLL	PRML	1,7 RLL	1,7 RLL	PRML
	4500	5400	4500	3600	3800
	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil	Rotary, Voice Coil
	Embedded	Embedded	Embedded	Embedded	Embedded
	17	12	11	14	14
	6.7	5.6	6.7	8.3	7.9
	23.7	17.6	17.7	22.3	21.9
	2.7/4.5 10.0 synch.	--/10.5 16.6 PIO Mode 4 16.6 DMA Mode 2	--/5.9 6.0	2.3/4.5 6.0	3.1/4.9 16.6 PIO Mode 4 16.6 DMA Mode 2
	19 x 70 x 100	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	12.5 x 70 x 100
	1/94	5/95	4/94	6/94	3Q95

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE	540S Fireball	540S Lightning	540S Maverick	640A Fireball	640S Fireball
DISK/TREND GROUP	6	6	6	6	6
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
Interface	SCSI	SCSI-2	SCSI-2	IDE	SCSI-3
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 545.4	F: 541.3	F: 540	F: 642	F: 642
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	3	4	2	2
Tracks per surface	3835	3673	2856	4142	4142
Track density (TPI)	4700	3794	2950	4270	4270
Maximum linear density (BPI) (FCI)	92982 98783	63515 47636	60204 45266	108964 115774	108964 115774
Areal density (Mb/square inch)	437.0	241.0	177.6	465.3	465.3
Recording code	PRML	1,7 RLL	1,7 RLL	16/17 PRML	16/17 PRML
Rotational speed (RPM)	5400	4500	3600	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)	12	11	14	12	12
Average rotational delay (msec)	5.6	6.7	8.3	5.6	5.6
Average access time (msec)	17.6	17.7	22.3	17.6	17.6
Data transfer rate (MBytes/sec) Internal, min/max External	--/10.5 10 synch. 6 asynch.	--/5.9 10.0 synch. 6.0 asynch.	2.3/4.5 10.0 synch. 5.0 asynch.	--/10.5 16.6 PIO Mode 4 16.6 DMA Mode 2	--/10.5 10.0 synch. 5.0 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	5/95	4/94	6/94	10/95	10/95
COMMENTS					

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	730A Lightning	730S Lightning	810AT Europa	850A Trailblazer	850S Trailblazer
DISK/TREND GROUP	6	6	6	6	6
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	65 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	MR Thin Film	MIG	MIG
Interface	IDE	SCSI-2	IDE	IDE	SCSI
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 731.5	F: 731.5	F: 810	F: 850.07	F: 852.01
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	4
Tracks per surface	3673	3673	2925	3653	3653
Track density (TPI)	3794	3794	5300	3794	3794
Maximum linear density (BPI) (FCI)	63515 47636	63515 47636	96373 108420	74258 55694	74258 55694
Areal density (Mb/square inch)	241.0	241.0	510.8	281.7	281.7
Recording code	1,7 RLL	1,7 RLL	PRML	1,7 RLL	1,7 RLL
Rotational speed (RPM)	4500	4500	3800	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)	11	11	14	14	14
Average rotational delay (msec)	6.7	6.7	7.9	6.7	6.7
Average access time (msec)	17.7	17.7	21.9	20.7	20.7
Data transfer rate (MBytes/sec) Internal, min/max External	--/5.9 6.0	--/5.9 10.0 synch. 6.0 asynch.	3.1/4.9 16.6 PIO Mode 4 16.6 DMA Mode 2	16.6 PIO Mode 4 16.6 DMA Mode 2	10 synch. 6 asynch.
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	19 x 70 x 100	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
FIRST CUSTOMER SHIPMENT	4/94	4/94	3Q95	5/95	5/95
COMMENTS					

## 1995 DISK/TREND REPORT

	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
<b>MANUFACTURER</b>					
<b>DRIVE</b>					
	DSP3053L	1080A Fireball	1080AT Europa	1080S Empire	1080S Fireball
<b>DISK/TREND GROUP</b>	6	7	7	7	7
<b>MARKET</b>	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
<b>MEDIA: Disk diameter</b>	95 mm	95 mm	65 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
<b>DRIVE: Heads</b>	MR Thin Film	Thin Film	MR Thin Film	Thin Film	Thin Film
Interface	SCSI-2	IDE	IDE	SCSI-3	SCSI
<b>CAPACITY/RECORDING DENSITY</b>					
Total capacity (Mbytes) <b>FIXED</b>	U: 684 F: 535	F: 1,089	F: 1,080	U: 1,232 F: 1,080	F: 1,092.7
<b>REMOVABLE</b>	--	--	--	--	--
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	8	8	4
Tracks per surface	3117	3835	2925	2874	3835
Track density (TPI)	3256	4700	5300	3014	4700
Maximum linear density (BPI) (FCI)	61509 46132	92982 98783	96373 108420	63600 47700	92982 98783
Areal density (Mb/square inch)	200.3	437.0	510.8	191.7	437.0
Recording code	1,7 RLL	PRML	PRML	1,7 RLL	PRML
Rotational speed (RPM)	5400	5400	3800	5400	5400
<b>PERFORMANCE</b>					
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)	9.5	12	14	9.5 RD/11 WR	12
Average rotational delay (msec)	5.6	5.6	7.9	5.6	5.6
Average access time (msec)	15.1	17.6	21.9	15.1 RD/16.6 WR	17.6
Data transfer rate (MBytes/sec) Internal, min/max External	3.4/6.9 20.0 synch. 10.0 asynch.	--/10.5 16.6 PIO Mode 4 16.6 DMA Mode 2	3.1/4.9 16.6 PIO Mode 4 16.6 DMA Mode 2	3.7/6.0 20.0 synch. 10.0 asynch.	--/10.5 10 synch. 6 asynch.
<b>SIZE: (mm) H x W x D</b>	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	19 x 70 x 100	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1
<b>FIRST CUSTOMER SHIPMENT</b>	10/94	5/95	3Q95	4Q93	5/95
<b>COMMENTS</b>					

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	1280A Fireball	1280S Fireball	1400S Empire	DSP3107L	DSP3133L
DISK/TREND GROUP	7	7	7	7	7
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	Thin Film	Thin Film	Thin Film	MR Thin Film	MR Thin Film
Interface	IDE	SCSI-3	SCSI-3	SCSI-2	SCSI-2
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 1,282	F: 1,282	U: 1,604 F: 1,400	U: 1,368 F: 1,070	U: 1,709 F: 1,337
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	8	8	10
Tracks per surface	4142	4142	3115	3117	3117
Track density (TPI)	4270	4270	3200	3256	3256
Maximum linear density (BPI) (FCI)	108964 115774	108964 115774	80000 90000	61509 46132	61509 46132
Areal density (Mb/square inch)	465.3	465.3	256.0	200.3	200.3
Recording code	16/17 PRML	16/17 PRML	PRML	1,7 RLL	1,7 RLL
Rotational speed (RPM)	5400	5400	5400	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)	12	12	9.5 RD/11 WR	9.5	9.5
Average rotational delay (msec)	5.6	5.6	5.6	5.6	5.6
Average access time (msec)	17.6	17.6	15.1 RD/16.6 WR	15.1	15.1
Data transfer rate (MBytes/sec) Internal, min/max External	--/10.5 16.6 PIO Mode 4 16.6 DMA Mode 2	--/10.5 10.0 synch. 5.0 asynch.	4.6/8.3 20.0 synch. 5.0 asynch.	3.4/6.9 20.0 synch. 10.0 asynch.	3.4/6.9 20.0 synch. 10.0 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	10/95	10/95	1Q94	10/94	10/94
COMMENTS					

## 1995 DISK/TREND REPORT



MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	VP31110 Capella	XP31070 Atlas	2100S Empire	DSP3210	VP32181 Empire II
DISK/TREND GROUP	7	7	8	8	8
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	MR Thin Film	Thin Film	Thin Film	MR Thin Film	MR Thin Film
Interface	SCSI-2	SCSI-2	SCSI-3	SCSI-2	Ultra SCSI-3
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	U: 1,412 F: 1,108	U: 1,344 F: 1,075	U: 2,406 F: 2,100	U: 2,688 F: 2,148	F: 2,180
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	5	12	16	5
Tracks per surface	4165	3832	3115	3045	3115
Track density (TPI)	4350	3858	3200	3256	5701
Maximum linear density (BPI) (FCI)	98600 73950	81765 61324	80000 90000	64000 48000	98000
Areal density (Mb/square inch)	428.9	315.4	256.0	208.4	558.7
Recording code	1,7 RLL	1,7 RLL	PRML	1,7 RLL	16/17 PRML
Rotational speed (RPM)	5400	7200	5400	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/9.5 WR	8.5	9.5 RD/11 WR	9.5	8.9 RD/10.9 WR
Average rotational delay (msec)	5.6	4.17	5.6	5.6	5.6
Average access time (msec)	14.1 RD/15.1 WR	12.67	15.1 RD/16.6 WR	15.1	14.5 RD/16.5 WR
Data transfer rate (MBytes/sec) Internal, min/max External	5.8/8.7 20.0 synch. 10.0 asynch.	6.1/10.2 20.0 synch. 10.0 asynch.	4.6/8.3 20.0 synch. 5.0 asynch.	3.4/6.9 20.0 synch. 10.0 asynch.	--/11.3 40
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	41.3 x 101.6 x 146.1	41.3 x 101.6 x 146.1	25.4 x 101.6 x 146
FIRST CUSTOMER SHIPMENT	1Q95	4Q94	1Q94	10/94	4Q95
COMMENTS					

# 1995 DISK/TREND REPORT

MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	VP32210 Capella	XP32150 Atlas	XP32151 Grand Prix	XP32181 Atlas II	VP34360 Empire II
DISK/TREND GROUP	8	8	8	8	9
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	MR Thin Film	Thin Film	Thin Film	MR Thin Film	MR Thin Film
Interface	SCSI-2	SCSI-2	SCSI-3	Ultra SCSI-3	Ultra SCSI-3
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	U: 2,824 F: 2,216	U: 2,689 F: 2,150	U: 2,619 F: 2,150	F: 2,180	F: 4,360
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	8	10	10	5	10
Tracks per surface	4165	3832	4066	5964	3115
Track density (TPI)	4350	3858	4000	6000	5701
Maximum linear density (BPI) (FCI)	98600 73950	81765 61324	79600	106000 79500	98000
Areal density (Mb/square inch)	428.9	315.4	318.4	636.0	558.7
Recording code	1,7 RLL	1,7 RLL	PRML	1,7 RLL	16/17 PRML
Rotational speed (RPM)	5400	7200	7200	7200	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/9.5 WR	8.5	8.6 RD/10.6 WR	7.9	8.9 RD/10.9 WR
Average rotational delay (msec)	5.6	4.17	4.17	4.17	5.6
Average access time (msec)	14.1 RD/15.1 WR	12.67	12.77/14.77	12.07	14.5 RD/16.5 WR
Data transfer rate (MBytes/sec) Internal, min/max External	5.8/8.7 20.0 synch. 10.0 asynch.	6.1/10.2 20.0 synch. 10.0 asynch.	5.8/9.7 20.0 synch.	8.8/13.3 40	--/11.3 40
SIZE: (mm) H x W x D	25.4 x 101.6 x 146.1	25.4 x 101.6 x 146.1	41.3 x 101.6 x 146.1	25.4 x 101.6 x 146	25.4 x 101.6 x 146
FIRST CUSTOMER SHIPMENT	1Q95	4Q94	4Q94	4Q95	4Q95
COMMENTS					

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MANUFACTURER	QUANTUM	QUANTUM	QUANTUM	QUANTUM	QUANTUM
DRIVE					
	VP39100 Empire II	XP34300 Atlas	XP34301 Grand Prix	XP34361 Atlas II	XP39100 Atlas II
DISK/TREND GROUP	9	9	9	9	9
MARKET	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM	OEM, PCM
MEDIA: Disk diameter	95 mm	95 mm	95 mm	95 mm	95 mm
Recording medium	Thin Film	Thin Film	Thin Film	Thin Film	Thin Film
DRIVE: Heads	MR Thin Film	Thin Film	Thin Film	MR Thin Film	MR Thin Film
Interface	Ultra SCSI-3	SCSI-2	SCSI-3	Ultra SCSI-3	Ultra SCSI-3
CAPACITY/RECORDING DENSITY					
Total capacity (Mbytes) FIXED	F: 9,100	U: 5,378 F: 4,300	U: 5,238 F: 4,300	F: 4,360	F: 9,100
REMOVABLE	--	--	--	--	--
Capacity per track (Bytes)	Varies by zone	Varies by zone	Varies by zone	Varies by zone	Varies by zone
Data surfaces per spindle	20	20	20	10	20
Tracks per surface	3115	3832	4066	5964	5964
Track density (TPI)	6200	3858	4000	6000	6000
Maximum linear density (BPI) (FCI)	98000	81765 61324	79600	106000 79500	111000 83250
Areal density (Mb/square inch)	607.6	315.4	318.4	636.0	666.0
Recording code	16/17 PRML	1,7 RLL	PRML	1,7 RLL	1,7 RLL
Rotational speed (RPM)	5400	7200	7200	7200	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)	8.9 RD/10.9 WR	8.5	8.6 RD/10.6 WR	7.9	7.9
Average rotational delay (msec)	5.6	4.17	4.17	4.17	4.17
Average access time (msec)	14.5 RD/16.5 WR	12.67	12.77/14.77	12.07	12.07
Data transfer rate (MBytes/sec) Internal, min/max External	--/11.3 40	6.1/10.2 20.0 synch. 10.0 asynch.	5.8/9.7 20.0 synch.	8.8/13.3 40	8.8/13.9 40
SIZE: (mm) H x W x D	41.3 x 101.6 x 146	41.3 x 101.6 x 146.1	41.3 x 101.6 x 146.1	25.4 x 101.6 x 146	41.3 x 101.6 x 146
FIRST CUSTOMER SHIPMENT	4Q95	4Q94	4Q94	4Q95	4Q95
COMMENTS					FC AL interface available 1996.

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