

# M3500A USBTMC Measurement Speeds

## USBTMC Direct I/O Measurements <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup> Single Reading - Measure and I/O Time

60Hz			50Hz		
Function	Resolution	USB (Readings/Sec)	Function	Resolution	USB (Readings/Sec)
DCV	Fast 4 1/2	333	DCV	Fast 4 1/2	333
	Fast 5 1/2	333		Fast 5 1/2	333
	Slow 5 1/2	55		Slow 5 1/2	45
	Slow 6 1/2	5.8		Slow 6 1/2	5.0
DCI	Fast 4 1/2	333	DCI	Fast 4 1/2	333
	Fast 5 1/2	333		Fast 5 1/2	333
	Slow 5 1/2	55		Slow 5 1/2	45
	Slow 6 1/2	5.8		Slow 6 1/2	5.0
2-Wire $\Omega$ (100 $\Omega$ Range)	Fast 4 1/2	333	2-Wire $\Omega$ (100 $\Omega$ Range)	Fast 4 1/2	333
	Fast 5 1/2	333		Fast 5 1/2	333
	Slow 5 1/2	55		Slow 5 1/2	45
	Slow 6 1/2	5.8		Slow 6 1/2	5.0
4-Wire $\Omega$ (100 $\Omega$ Range)	Fast 4 1/2	27	4-Wire $\Omega$ (100 $\Omega$ Range)	Fast 4 1/2	27
	Fast 5 1/2	5.8		Fast 5 1/2	5.7
	Slow 5 1/2	4.6		Slow 5 1/2	4.4
	Slow 6 1/2	1.4		Slow 6 1/2	1.3
RATIO (DC 10V Range)	Fast 4 1/2	63	RATIO (DC 10V Range)	Fast 4 1/2	63
	Fast 5 1/2	15.7		Fast 5 1/2	15
	Slow 5 1/2	9.2		Slow 5 1/2	8
	Slow 6 1/2	1.7		Slow 6 1/2	1.4
VAC/AAC	200Hz	64	VAC/AAC	200Hz	64
	20Hz	7.9		20Hz	7.9
	3Hz	0.8		3Hz	0.8
Frequency (3KHz, 1.2V)	4 1/2	71	Frequency (3KHz, 1.2V)	4 1/2	71
	5 1/2	8.8		5 1/2	8.8
	6 1/2	0.9		6 1/2	0.9

(1) Typical. Display on, immediate trigger, trigger delay 0, autozero off, autogain off, autorange off, no math, null off, sample count 1, trig count 1

(2) DUT: Agilent 34172A DMM Calibration Short

(3) Firmware Version: 02.02