

## BUREAU INTERNATIONAL DES POIDS ET MESURES

Key comparison CCTF-K001.UTC - Results  
 Degrees of equivalence  $D_k = [UTC - UTC(k)]$  for July 2024  
 Computed 2024 AUGUST 08, 15h UTC

Coordinated Universal Time **UTC** and its local realizations **UTC(*k*)** in National Metrology Institutes and Designated Institutes.  
 Computed values of [**UTC - UTC(*k*)**] and uncertainties valid for the period of this publication

Date 2024 0h UTC	JUL 3	JUL 8	JUL 13	JUL 18	JUL 23	JUL 28	Uncertainty/ns		
MJD	60494	60499	60504	60509	60514	60519	$U_a$	$U_b$	$U_k$
Laboratory <i>k</i>	[ <b>UTC - UTC(<i>k</i>)</b> ]/ns								
BelGIM	-0.5	-0.9	-1.8	-2.1	-1.5	-1.4	3.0	6.0	6.6
BEV	-3.8	-1.6	3.1	2.4	-6.6	-15.3	0.4	5.6	5.6
BFKH	11268.6	11321.2	11364.8	11410.6	11451.8	11498.7	3.0	14.4	14.8
BIM	1035.5	1086.2	1134.1	1190.8	1244.0	1292.4	0.4	5.2	5.2
BMM	1780.3	1796.2	1815.2	1832.1	1849.7	1874.1	0.4	5.4	5.4
BSJ	48.5	33.4	34.2	5.8	42.7	36.2	14.0	14.0	19.8
CENAM	-1.5	-2.2	-2.5	-3.6	-2.6	0.3	6.0	8.6	10.4
CENAMAP AIP	-2.3	-4.3	-3.1	3.1	-0.9	5.0	0.4	10.8	10.8
DEF-NAT	-3706.9	-3795.3	-3875.2	-3962.4	-4056.4	-4148.6	1.4	5.2	5.4
DFM	-0.1	0.4	0.3	1.6	2.5	3.4	0.4	5.2	5.2
DZM	36.4	36.7	38.0	34.3	33.8	31.3	0.4	5.2	5.2
EMI	-	-	-	-	-	-	-	-	-
ESA	-1.8	-1.2	-0.7	-0.4	-0.8	-0.6	0.4	5.4	5.4
FTMC	375.5	365.1	375.3	387.8	393.4	405.3	0.4	5.2	5.2
GUM	3.4	3.8	4.2	4.2	3.9	4.3	0.6	6.0	6.0
IBMETRO	437.8	377.3	384.1	388.6	387.6	392.4	8.0	15.0	17.0
ILNAS	15.2	15.4	21.2	24.9	31.8	24.1	0.4	5.2	5.2
IMBIH	0.7	0.4	0.7	0.3	-1.0	-1.6	0.4	5.4	5.4
INACAL	-21.1	-17.6	-29.6	-47.8	-36.0	-46.7	10.0	NC	- (*)
INM	452.9	454.5	446.3	447.0	463.4	465.8	0.4	15.6	15.6
INM(CO)	-164.6	-135.4	-108.8	-101.4	-86.9	-67.4	6.0	NC	- (*)
INMETRO	9.4	-7.2	-5.0	-2.4	3.2	-0.3	0.4	6.2	6.2
INPL	-34.9	-38.9	-38.3	-38.6	-40.4	-43.0	0.4	15.2	15.2
INRIM	1.3	1.4	1.2	0.9	0.4	-0.2	0.4	4.0	4.0
INTI	180.4	180.4	177.4	181.3	189.1	183.8	0.4	6.2	6.2
IPE/ASCR	-1.9	-1.4	10.5	9.2	3.5	-3.4	0.4	5.8	5.8
IPQ	1349.4	1363.8	1381.7	1393.0	1405.0	1408.1	0.4	5.8	5.8

JV	-0.6	-0.8	-1.4	-1.2	-0.4	0.6	0.4	9.4	9.4
KazStandard	0.0	-1.3	-0.7	-1.4	-1.1	-2.2	1.4	8.4	8.6
KRISS	3.0	3.8	4.5	4.8	3.1	2.1	0.4	5.6	5.6
LAMETRO-ICE	43.9	51.3	56.3	42.7	35.3	38.8	0.4	14.0	14.0
LNE-SYRTE	-0.3	0.4	0.7	0.7	1.0	1.1	0.4	3.4	3.4
MASM	-916.6	-1068.3	-1221.4	-1364.6	-1512.4	176.7	0.4	6.8	6.8
METAS	-4.2	5.8	4.5	3.6	1.6	-1.2	1.0	3.4	3.6
MIKES	-25.2	-10.6	-22.8	-20.3	-17.2	-13.9	0.4	5.2	5.2
MIRS/SIQ/Metrology	437.4	443.7	444.6	456.3	472.2	476.6	0.4	8.0	8.0
MSL	15.6	6.5	0.3	2.9	-7.3	-20.7	1.4	5.6	5.8
NICT	-2.8	-3.1	-3.2	-2.7	-2.1	-1.9	0.4	4.6	4.6
NIM	-0.4	-0.1	0.2	0.6	0.6	0.7	0.4	3.4	3.4
NIMT	7.5	2.6	9.7	5.9	7.7	12.3	0.4	5.6	5.6
NIS	30.8	57.3	57.7	54.0	54.2	77.3	1.4	14.4	14.4
NIST	0.1	0.2	0.0	-0.1	-0.1	0.2	0.4	5.4	5.4
NMC, A*STAR	-10.0	-12.7	-9.4	-6.5	-9.4	1.0	0.4	5.2	5.2
NMIA	-124.1	-116.1	-105.6	-98.8	-112.6	-99.0	0.4	5.6	5.6
NMIIJ AIST	72.4	112.8	141.9	150.6	205.5	342.4	0.4	5.4	5.4
NMIM	-116.9	-112.3	-111.8	-106.4	-102.3	-91.8	0.4	5.2	5.2
NMISA	5.8	6.4	1.6	0.5	3.6	3.8	3.0	6.8	7.4
NPL	1.5	1.2	1.5	1.4	1.0	1.3	0.4	3.4	3.4
NPLI	-2.1	-1.2	-1.0	-1.1	-1.1	-1.0	0.4	7.0	7.0
NRC	2.7	4.3	4.7	4.0	3.3	2.4	0.4	5.2	5.2
NSAI NML	166.5	161.4	163.6	159.7	148.4	137.4	0.4	14.6	14.6
NSC IM	3.1	-	4.3	-	-0.9	-	6.0	14.8	16.0
ON/DSHO	2.7	0.7	2.3	1.8	-3.1	-1.5	0.4	6.2	6.2
PTB	-0.5	-0.5	-0.7	-0.7	-0.7	-0.8	0.4	3.4	3.4
RISE	0.8	0.9	0.9	0.9	0.8	0.5	0.4	3.8	3.8
ROA	-5.0	-4.0	-3.8	-4.0	-2.9	-4.2	0.4	3.6	3.6
SASO-NMCC	-45.2	-45.4	-43.1	-41.8	-38.4	-40.8	1.4	7.4	7.6
SCL	-8.9	-9.1	-9.3	-7.2	-7.5	1.4	0.4	7.0	7.0
SMD	-2.9	-2.4	-2.3	-2.5	-2.1	-2.2	0.4	7.4	7.4
SMU	-	-	-	-	-	-	-	-	-
SNSU-BSN	-178.2	-194.0	-203.1	-232.5	-252.9	-257.4	0.4	NC	- (*)
TL	0.3	0.4	0.2	0.3	0.2	0.5	0.4	3.4	3.4
UME	-0.2	-0.9	-1.3	-1.8	-0.8	-1.3	0.4	7.8	7.8
UTE	-	-	-	-	-	-	-	-	-
UzNIM	279.5	268.8	253.7	246.9	230.6	213.8	0.4	14.2	14.2
VMI-STAMEQ	55.3	36.9	14.3	-5.6	-10.4	-6.1	1.4	5.8	6.0
VNIIFTRI	0.3	0.1	0.1	0.2	-0.2	-0.1	0.4	3.8	3.8
VSL	-1.2	0.1	0.7	1.3	0.6	-0.6	0.4	3.6	3.6

ZMDM -18.5 -8.4 6.6 12.3 14.5 2.2 0.4 7.8 7.8

(\*)  $U_a$  expanded uncertainty guarantees only the traceability in frequency