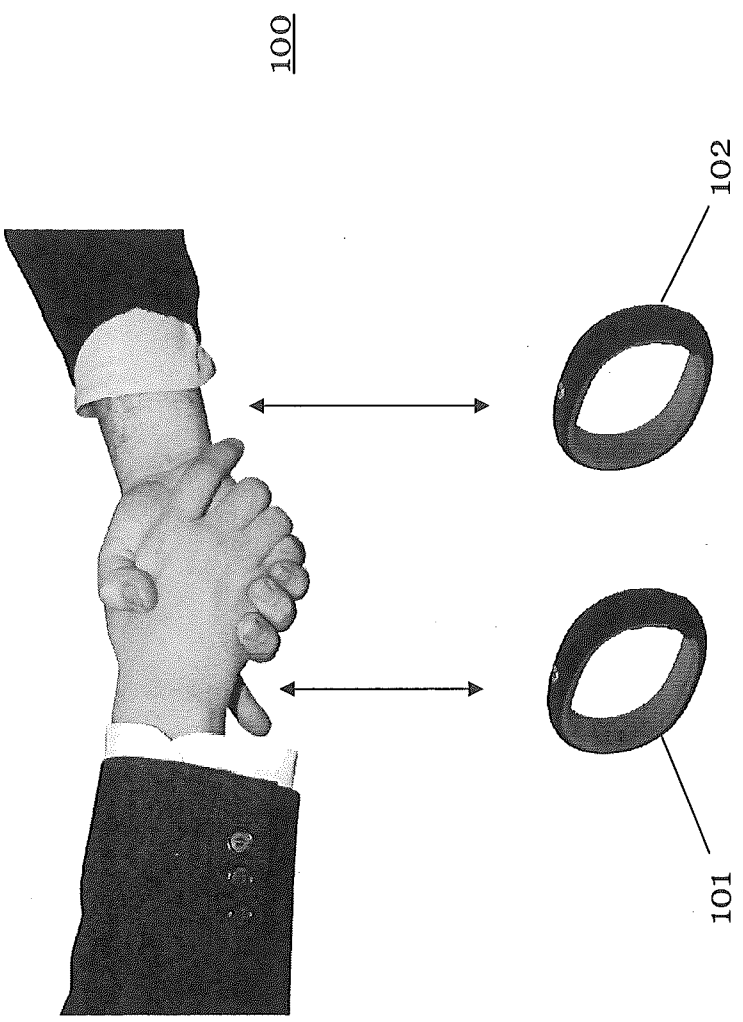

Figure 1

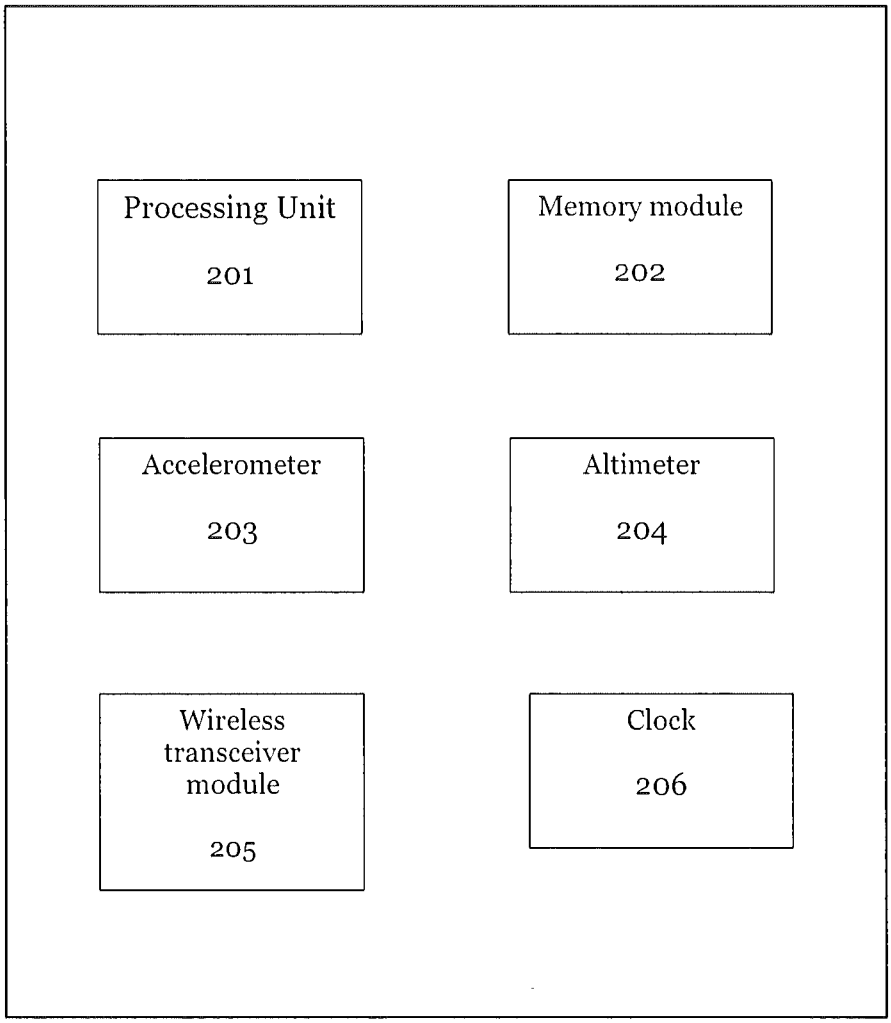
Processing Unit
201
Memory module
202
Accelerometer
203
Altimeter
204
Wireless transceiver module
205
Clock
206
101

Figure 2

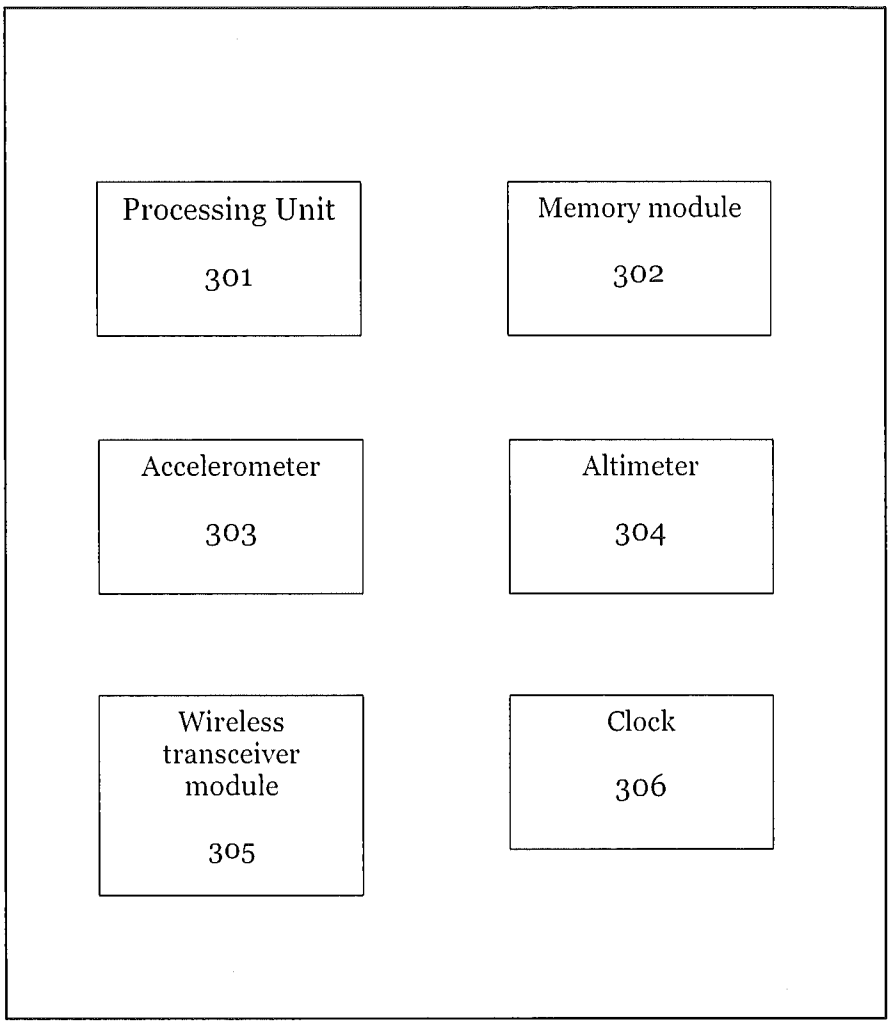
Processing Unit
301
Memory module
302
Accelerometer
303
Altimeter
304
Wireless transceiver module
305
Clock
306
102

Figure 3

401

Time (seconds)	X – Axis (c)	Y – Axis (c)	Z – Axis (c)
00.00.0	-381	6716	-2553
00.00.0	98	5702	-2249
00.00.1	363	4602	-2034
00.00.1	671	3609	-1722
00.00.1	737	2689	-1360
00.00.1	582	1790	-1016
00.00.1	363	1053	-598
00.00.2	169	409	-249
00.00.2	-126	-693	229
00.00.2	-227	-1106	206
00.00.2	-420	-1552	415
00.00.2	-190	-1675	586
00.00.3	122	-1190	169
00.00.3	230	-553	-300
00.00.3	491	152	-544
00.00.3	1230	1684	-1309
00.00.3	1224	3933	-2526
00.00.4	1335	7041	-4148
00.00.4	804	8191	-5792
00.00.4	305	8191	-6792
00.00.4	-1371	8191	-6666
00.00.4	-915	8191	-5025
00.00.5	-508	8191	-3987
00.00.5	-358	7546	-2982
00.00.5	-106	6130	-2688
00.00.5	392	4673	-2175
00.00.5	782	3469	-1874
00.00.6	897	2391	-1540
00.00.6	806	1593	-1403
00.00.6	430	772	-983
00.00.6	115	121	-444
00.00.6	-70	-465	14
00.00.7	-131	-885	142
00.00.7	17	-1197	159
00.00.7	-32	-1666	299
00.00.7	24	-1864	335
00.00.7	266	-1423	38
00.00.8	427	-763	-199
00.00.8	773	157	-465
00.00.8	1244	1557	-1139
00.00.8	1617	3960	-2470
00.00.8	1672	7309	-4367
00.00.9	666	8191	-5769
00.00.9	581	8191	-6198
00.00.9	-2619	8191	-6390
00.00.9	-150	8191	-5924
00.00.9	-311	8191	-4734
00.01.0	-205	7969	-3706
00.01.0	353	6595	-3132
00.01.0	820	5236	-2683

401

Figure 4

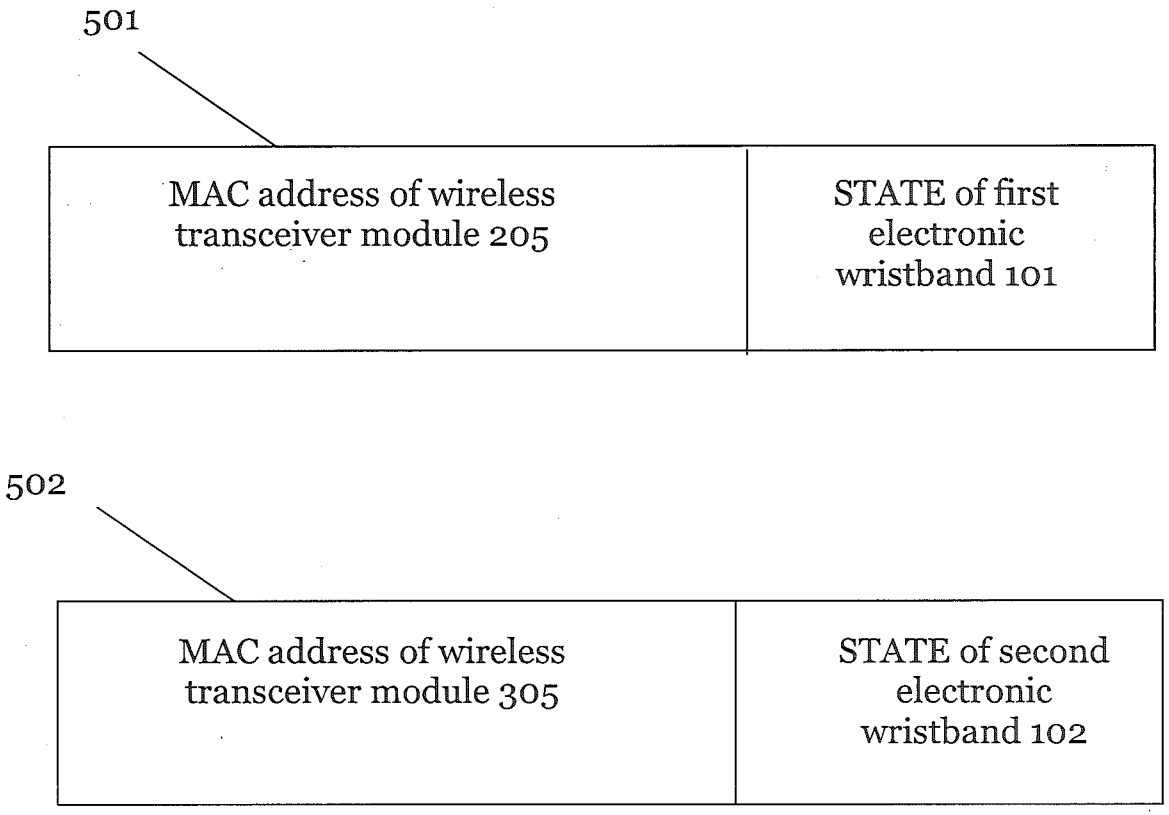
501
MAC address of wireless transceiver module 205
STATE of first electronic wristband 101
502
MAC address of wireless transceiver module 305
STATE of second electronic wristband 102

Figure 5

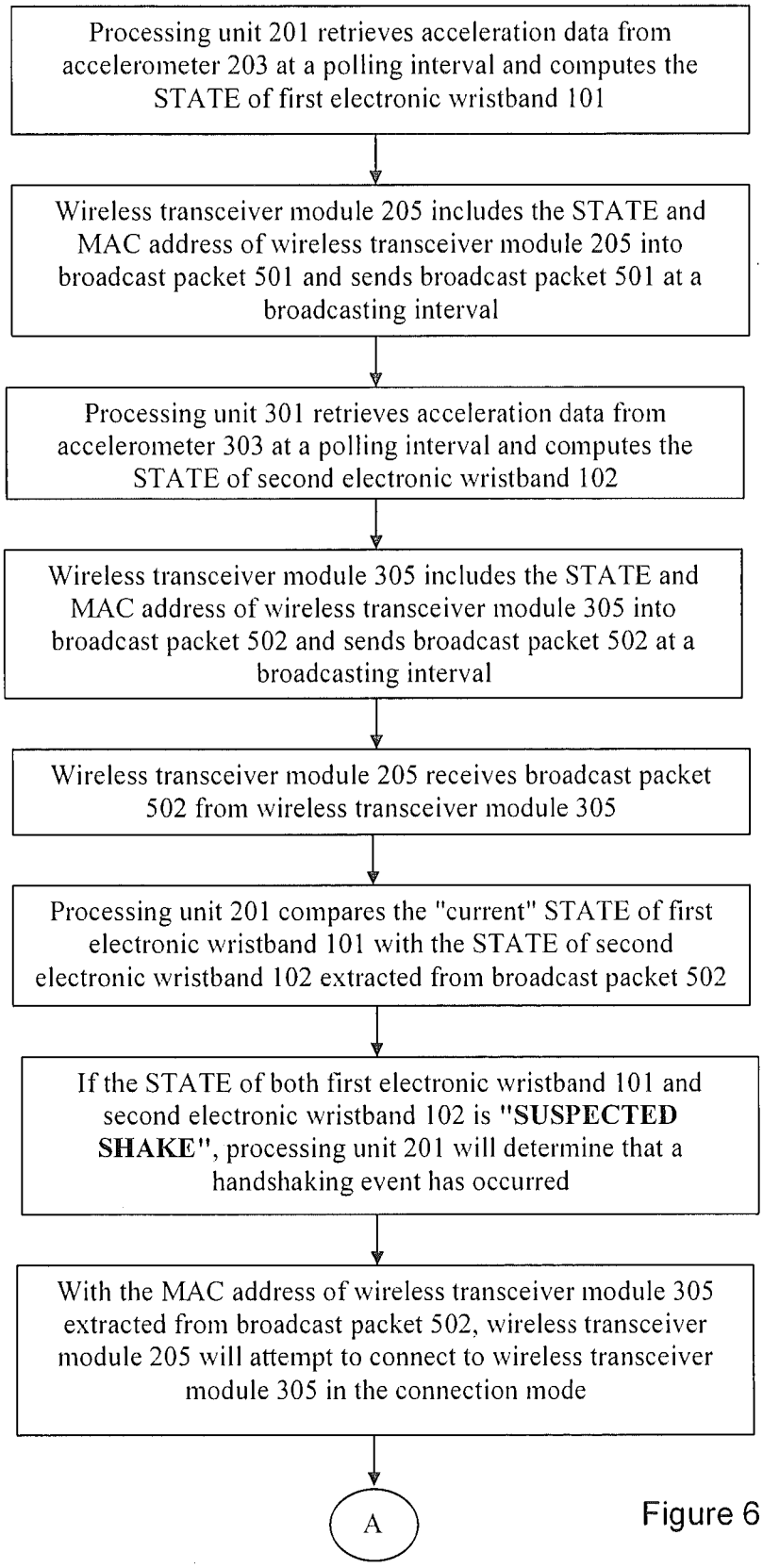
Processing unit 201 retrieves acceleration data from accelerometer 203 at a polling interval and computes the STATE of first electronic wristband 101
601
Wireless transceiver module 205 includes the STATE and MAC address of wireless transceiver module 205 into broadcast packet 501 and sends broadcast packet 501 at a broadcasting interval
602
Processing unit 301 retrieves acceleration data from accelerometer 303 at a polling interval and computes the STATE of second electronic wristband 102
603
Wireless transceiver module 305 includes the STATE and MAC address of wireless transceiver module 305 into broadcast packet 502 and sends broadcast packet 502 at a broadcasting interval
604
Wireless transceiver module 205 receives broadcast packet 502 from wireless transceiver module 305
605
Processing unit 201 compares the "current" STATE of first electronic wristband 101 with the STATE of second electronic wristband 102 extracted from broadcast packet 502
606
If the STATE of both first electronic wristband 101 and second electronic wristband 102 is "SUSPECTED SHAKE", processing unit 201 will determine that a handshaking event has occurred
607
With the MAC address of wireless transceiver module 305 extracted from broadcast packet 502, wireless transceiver module 205 will attempt to connect to wireless transceiver module 305 in the connection mode
608
A

Figure 6

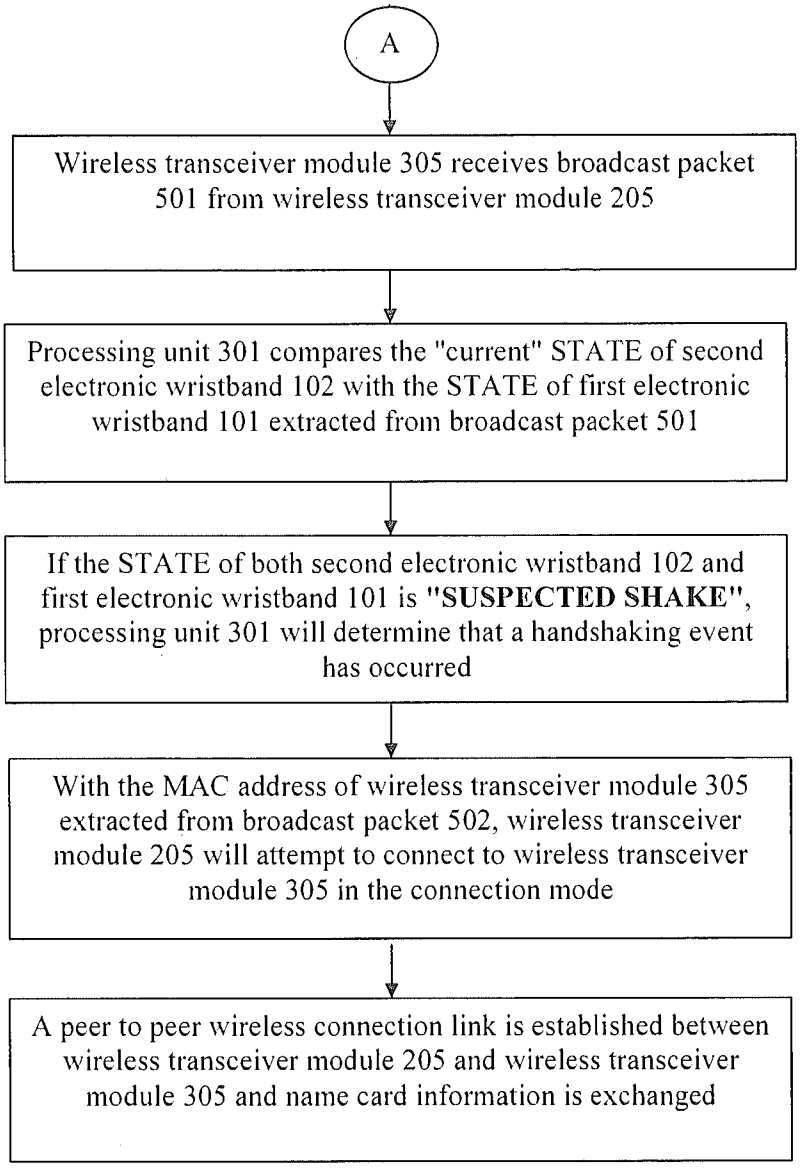

Figure 6

(continued)

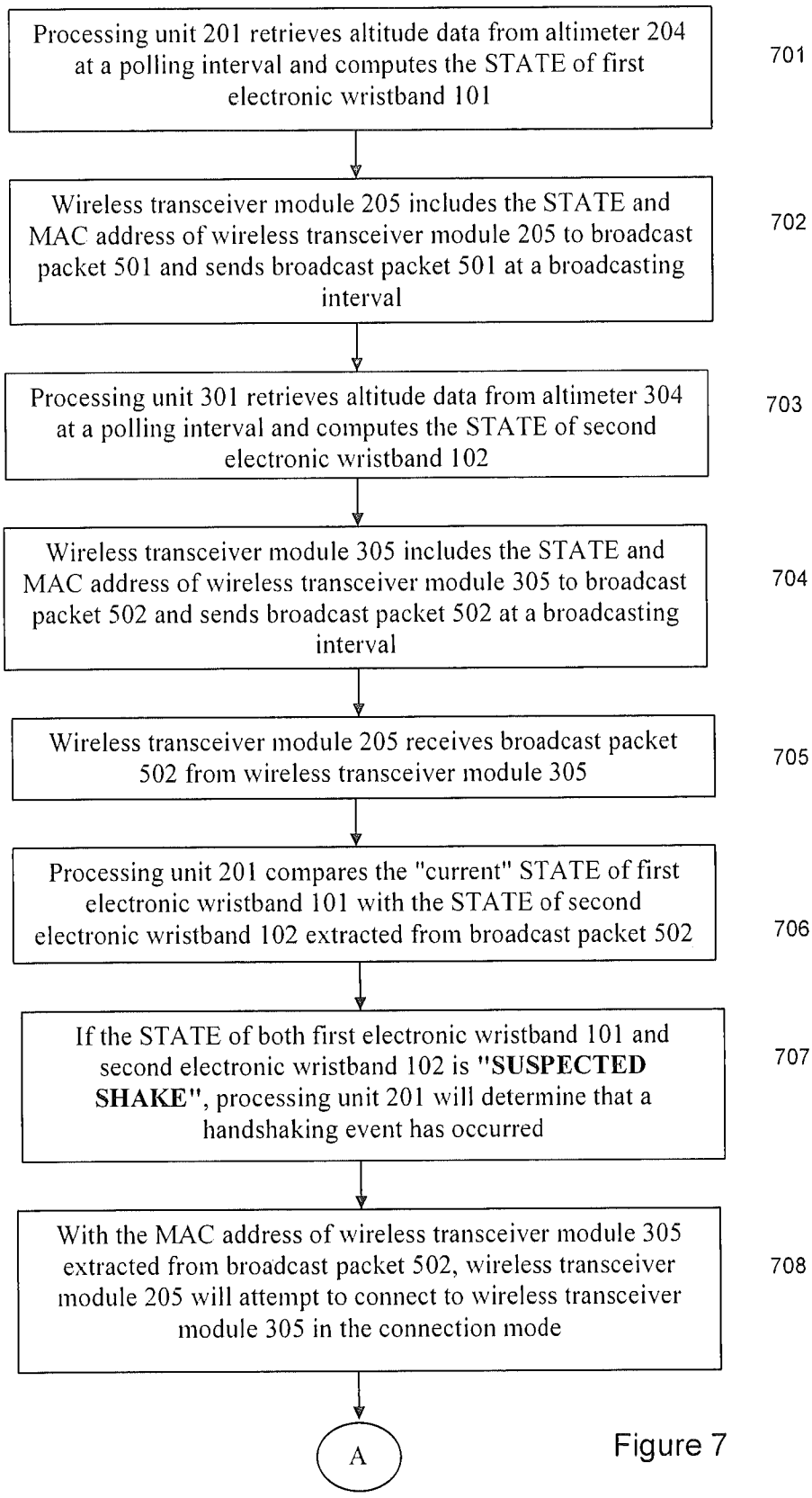
Processing unit 201 retrieves altitude data from altimeter 204 at a polling interval and computes the STATE of first electronic wristband 101
701
Wireless transceiver module 205 includes the STATE and MAC address of wireless transceiver module 205 to broadcast packet 501 and sends broadcast packet 501 at a broadcasting interval
702
Processing unit 301 retrieves altitude data from altimeter 304 at a polling interval and computes the STATE of second electronic wristband 102
703
Wireless transceiver module 305 includes the STATE and MAC address of wireless transceiver module 305 to broadcast packet 502 and sends broadcast packet 502 at a broadcasting interval
704
Wireless transceiver module 205 receives broadcast packet 502 from wireless transceiver module 305
705
Processing unit 201 compares the "current" STATE of first electronic wristband 101 with the STATE of second electronic wristband 102 extracted from broadcast packet 502
706
If the STATE of both first electronic wristband 101 and second electronic wristband 102 is "SUSPECTED SHAKE", processing unit 201 will determine that a handshaking event has occurred
707
With the MAC address of wireless transceiver module 305 extracted from broadcast packet 502, wireless transceiver module 205 will attempt to connect to wireless transceiver module 305 in the connection mode
708
A

Figure 7

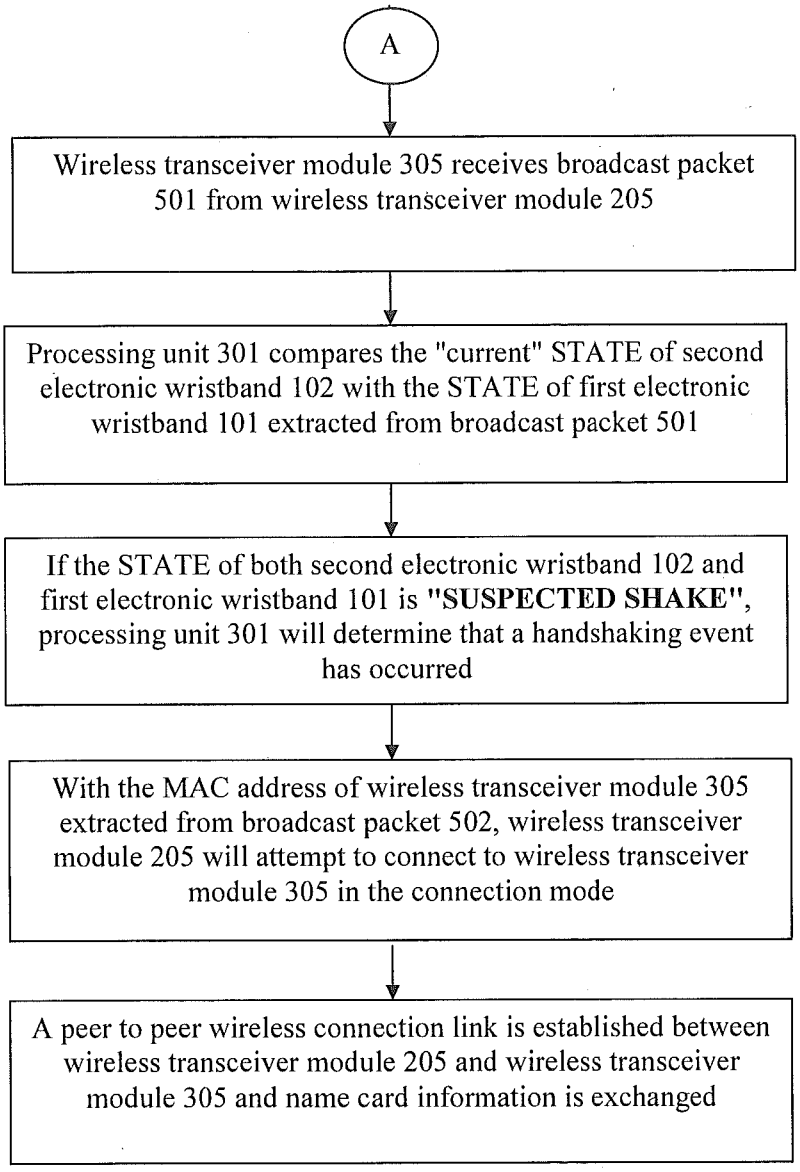

Figure 7

(continued)

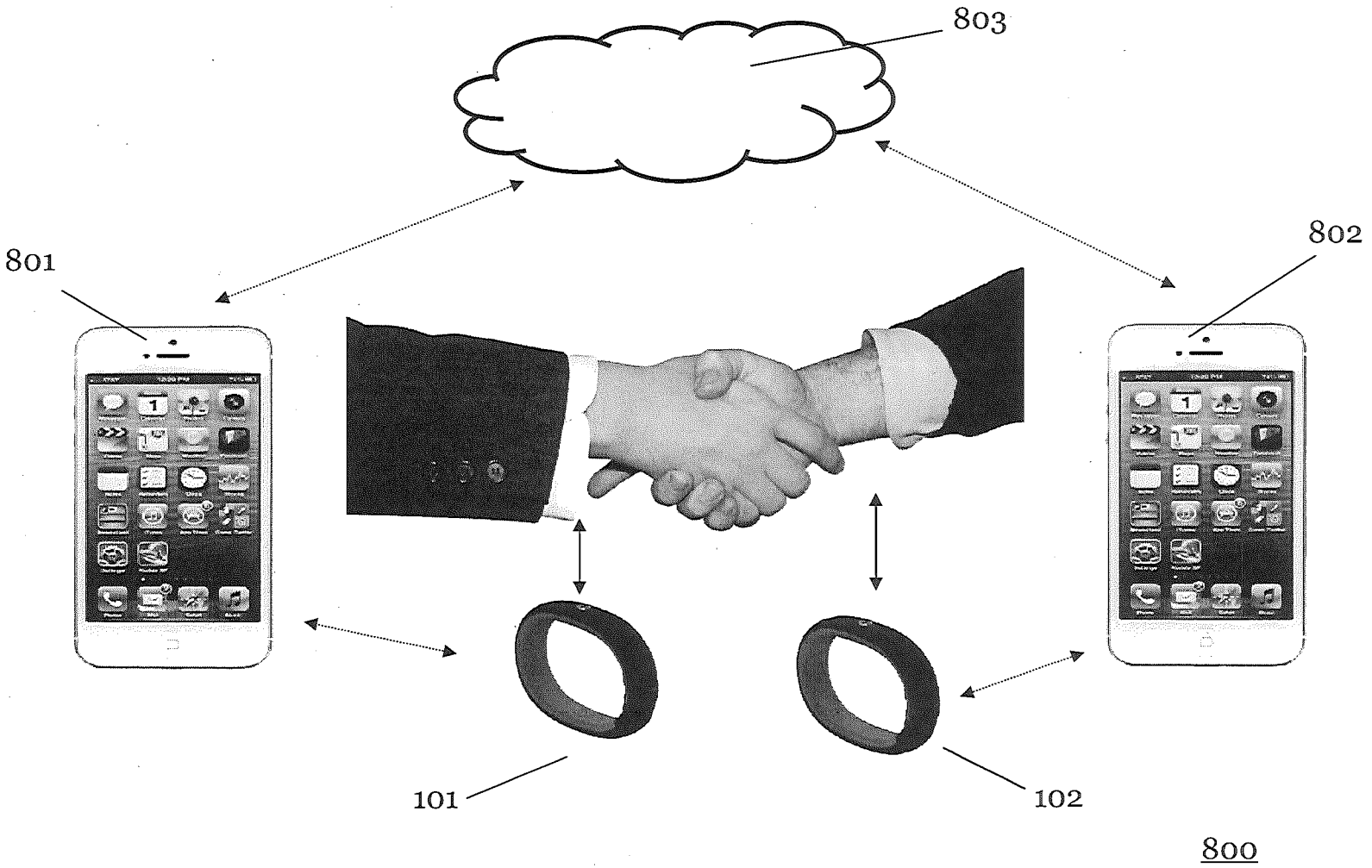

Figure 8

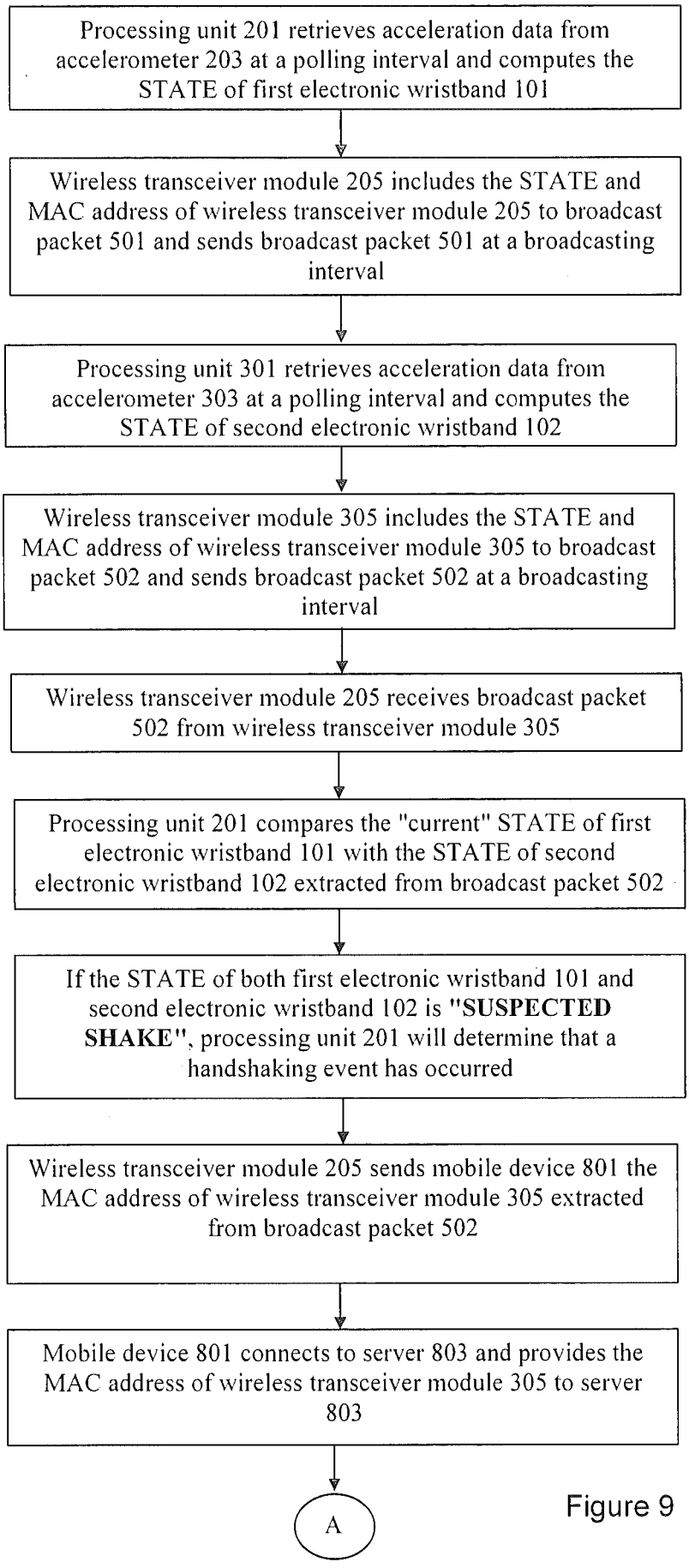
Processing unit 201 retrieves acceleration data from accelerometer 203 at a polling interval and computes the STATE of first electronic wristband 101
901
Wireless transceiver module 205 includes the STATE and MAC address of wireless transceiver module 205 to broadcast packet 501 and sends broadcast packet 501 at a broadcasting interval
902
Processing unit 301 retrieves acceleration data from accelerometer 303 at a polling interval and computes the STATE of second electronic wristband 102
903
Wireless transceiver module 305 includes the STATE and MAC address of wireless transceiver module 305 to broadcast packet 502 and sends broadcast packet 502 at a broadcasting interval
904
Wireless transceiver module 205 receives broadcast packet 502 from wireless transceiver module 305
905
Processing unit 201 compares the "current" STATE of first electronic wristband 101 with the STATE of second electronic wristband 102 extracted from broadcast packet 502
906
If the STATE of both first electronic wristband 101 and second electronic wristband 102 is "SUSPECTED SHAKE", processing unit 201 will determine that a handshaking event has occurred
907
Wireless transceiver module 205 sends mobile device 801 the MAC address of wireless transceiver module 305 extracted from broadcast packet 502
908
Mobile device 801 connects to server 803 and provides the MAC address of wireless transceiver module 305 to server 803
909
A

Figure 9

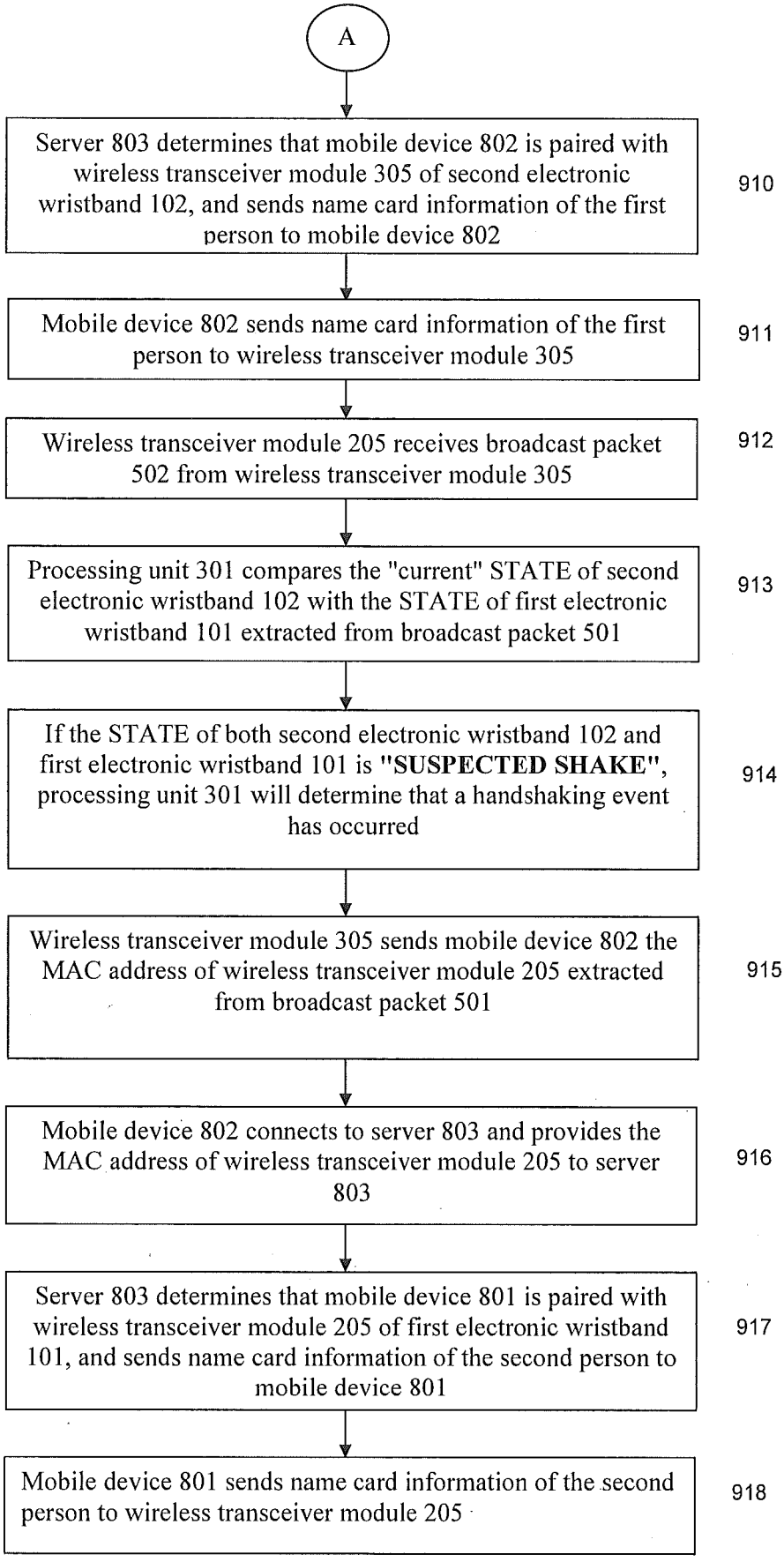

Figure 9
(continued)