

No	Feature	Description
1	ts	Time Stamp
2	Ether_dst	Destination Media Access Control (MAC) Address
3	Ether_src	Source MAC Address
4	IP_src	Source Internet Protocol (IP) Address
5	IP_dst	Destination IP Address
6	WS_src	WireShark Source Address
7	WS_dst	WireShark Destination Address
8	pck_size	Packet (Frame) Size
9	Ether_type	Ethernet Type
10	LLC_dsap	Logical Link Control - Destination Service Access Point
11	LLC_ssap	Logical Link Control - Source Service Access Point
12	LLC_ctrl	Logical Link Control - Control
13	EAPOL_version	Extensible Authentication Protocol (EAPOL) version
14	EAPOL_type	Extensible Authentication Protocol (EAPOL) type
15	EAPOL_len	Extensible Authentication Protocol (EAPOL) Length
16	IP_version	IP version
17	IP_ihl	IP Internet Header Length
18	IP_tos	IP type of service
19	IP_len	IP Length
20	IP_flags	IP Flags
21	IP_Z	IP Zero
22	IP_MF	IP More Fragments
23	IP_id	IP identifier
24	IP_chksum	IP Checksum
25	IP_DF	IP Don't Fragment
26	IP_frag	IP fragmentation
27	IP_ttl	IP Time To Live
28	IP_proto	IP Protocols
29	IP_options	IP Options
30	ICMP_type	Internet Control Message Protocol (ICMP) Type
31	ICMP_code	ICMP Code
32	ICMP_chksum	ICMP Checksum
33	ICMP_id	ICMP identifier
34	ICMP_seq	ICMP Sequence Number
35	ICMP_ts_ori	ICMP ConditionalField
36	ICMP_ts_rx	ICMP ConditionalField
37	ICMP_ts_tx	ICMP ConditionalField
38	ICMP_ptr	ICMP ConditionalField
39	ICMP_reserved	ICMP ConditionalField
40	ICMP_length	ICMP length
41	ICMP_nexthopmtu	ICMP Next Hop Maximum Transmission Unit (MTU)
42	ICMP_unused	ICMP ConditionalField
43	TCP_seq	TCP Sequence Number
44	TCP_ack	TCP Acknowledgment Number
45	TCP_dataofs	TCP data offset
46	TCP_reserved	TCP Reserved
47	TCP_flags	TCP Flags ¹
48	TCP_FIN	FINished Flag
49	TCP_SYN	Sync Flag
50	TCP_RST	Reset Flag

Table 1: Add caption

No	Feature	Description
51	TCP_PSH	Push Flag
52	TCP_ACK	Acknowledgment Flag
53	TCP_URG	Urgent Flag
54	TCP_ECE	ECE Flag
55	TCP_CWR	CWR Flag
56	TCP_window	TCP Window Size
57	TCP_chksun	TCP Checksum
58	TCP_urgptr	TCP Urgent Pointer
59	TCP_options	TCP Options
60	UDP_len	User datagram protocol (UDP) Length
61	UDP_chksun	UDP Checksum
62	DHCP_options	Dynamic Host Configuration Protocol (DHCP) Options
63	BOOTP_op	Bootstrap Protocol (BOOTP) Options
64	BOOTP_htype	BOOTP Hardware Len
65	BOOTP_hlen	BOOTP Hardware Length
66	BOOTP_hops	BOOTP Hardware Options
67	BOOTP_xid	BOOTP Transaction Identifier
68	BOOTP_secs	BOOTP Seconds
69	BOOTP_flags	BOOTP Flags
70	BOOTP_sname	BOOTP Server Name
71	BOOTP_file	BOOTP Boot Filename
72	BOOTP_options	BOOTP Options
73	DNS_length	Domain Name System (DNS) Length
74	DNS_id	DNS Identifier
75	DNS_qr	DNS Query-Response
76	DNS_opcode	DNS Operation Code
77	DNS_aa	DNS Authoritative Answer
78	DNS_tc	DNS TrunCation
79	DNS_rd	DNS Recursion Desired
80	DNS_ra	DNS Recursion Available
81	DNS_z	DNS Reserved for future use
82	DNS_ad	DNS Authentic Data
83	DNS_cd	DNS Checking Disabled
84	DNS_rcode	DNS Response Code
85	DNS_qdcount	DNS The unsigned fields query count
86	DNS_ancount	DNS Answer Count
87	DNS_nscount	DNS Authority Count
88	DNS_arcount	DNS Additional Information Count
89	sport_class	Source Port Class (IoTDevID classing)
90	dport_class	Destination Port Class (IoTDevID classing)
91	sport23	Source Port Class (keep wellknown ports between 0-1023)
92	dport23	Destination Port Class (keep wellknown ports between 0-1023)
93	sport_bare	Source Port Number
94	dport_bare	Destination Port Number
95	payload_bytes	Payload size in Bytes
96	entropy	Payload Entropy
97	Protocol	WireShark Protocol
98	sport	Source Port Number
99	dport	Destination Port Number
100	Label	Packet Level Label ²

Table 2: Add caption

ML	Date	Type	AMCREST WiFi Camera	Amazon Alexa Echo Dot 1	Amazon Alexa Echo Dot 2	Amazon Alexa Echo Spot	Amazon Alexa Echo Studio	Amazon Plug	AirO Base Station	AirO Q Camera	Atom Coffee Maker	Bosun/Sichuan-AI Camera	D-Link Water Sensor	D-Link Mini Camera	Early HomeBase 2	Globe Lamp ESP_B1680C	Google Nest Mini	Gosund ESP_032979 Plug	Gosund ESP_0393AF Socket	Gosund ESP_0C3994 Plug	Gosund ESP_10098F Socket	Gosund ESP_10ACD8 Plug	Gosund ESP_147FF9 Plug	Gosund ESP_1ACEE1 Socket	HelinVision Smart WiFi Camera	HelinVision SmartLife R-Lamp	Home Eye Camera	LG Smart TV	Liobee Cam Dog	Nest Indoor Camera	Netatmo Camera	Netatmo Weather Station	Philips Hue Bridge	Ring Base Station AC1296	SIMCAM 1S (AMIPARtec)	Smart Board	Sonos One Speaker	Teckin Plug 1	Teckin Plug 2	Yatron Plug 1	Yatron Plug 2	iRobot Roomba
Train	20211102	ACTIVE	6.68	7.91	6.84	14.94	13.20	1.47	12.63	21.08	6.93	24.04	0.00	1.08	8.08	6.75	20.59	6.65	6.62	6.63	0.00	6.66	6.63	6.64	14.29	7.88	22.48	0	3.03	33.40	9.29	1.81	12.50	3.37	21.45	0.40	5.18	6.68	6.34	6.35	6.68	1.12
Train	20211103	ACTIVE	5.54	7.10	6.98	15.19	13.16	1.48	4.93	18.51	6.93	24.42	0.00	1.10	8.07	6.75	20.46	6.75	6.74	6.75	0.00	6.66	6.63	6.64	14.30	7.88	25.28	0	2.92	34.40	9.51	1.81	12.50	3.37	21.45	0.40	5.18	6.68	6.32	6.39	6.65	1.21
Train	20211105	ACTIVE	5.62	7.00	6.93	13.72	13.12	1.48	4.95	21.54	6.94	26.20	0.00	1.11	8.07	6.74	21.27	6.70	6.73	6.75	0.00	6.75	6.75	6.74	14.39	7.88	29.66	0	2.98	33.78	9.51	1.81	12.50	3.37	21.45	0.40	5.18	6.68	6.34	6.35	6.66	1.05
Train	20211108	ACTIVE	5.63	7.03	10.92	14.90	13.06	1.47	4.98	78.96	6.94	26.05	0.00	1.11	8.08	6.74	21.11	6.70	6.73	6.75	0.00	6.75	6.75	6.74	13.78	7.88	37.03	0	2.78	34.38	9.51	1.81	12.50	3.37	21.45	0.40	5.18	6.68	6.34	6.35	6.67	1.06
Train	20211109	ACTIVE	6.09	11.44	10.94	14.72	13.17	1.47	45.97	47.26	6.93	24.37	0.00	1.09	7.97	6.75	21.08	6.75	6.74	6.75	0.00	6.75	6.75	6.75	13.78	7.88	28.97	0	3.03	33.68	9.17	1.77	12.47	3.34	21.05	0.41	4.99	6.62	6.08	6.64	6.07	1.05
Train	20211110	ACTIVE	6.74	44.07	48.50	19.88	14.95	2.39	22.25	37.38	6.93	24.20	0.00	1.09	7.98	6.74	17.82	6.73	6.73	6.74	6.75	0.00	6.75	6.75	13.79	7.88	33.05	0	3.01	36.28	9.00	1.82	13.79	3.27	21.15	6.15	6.87	6.09	6.11	6.46	6.49	1.16
Train	20211112	ACTIVE	5.65	14.08	40.82	15.70	19.46	1.47	4.89	37.48	6.92	24.09	0.00	1.09	8.06	6.73	25.21	6.73	6.73	6.74	6.75	0.00	6.73	6.73	13.74	7.86	39.65	0	3.02	39.18	10.53	1.91	15.19	3.28	21.48	8.36	6.98	6.25	6.26	6.36	6.39	1.19
Train	20211115	ACTIVE	5.66	12.14	11.83	14.93	14.21	1.82	11.09	55.18	7.14	17.26	0.00	1.17	8.15	6.88	24.21	6.87	6.89	6.89	6.90	6.89	6.89	6.89	13.61	8.07	27.98	0	3.01	67.01	9.43	1.83	17.90	3.85	21.47	3.04	4.25	6.36	6.28	6.38	6.59	1.21
Train	20211116	ACTIVE	5.43	11.33	10.96	13.68	13.82	1.47	11.09	98.64	6.93	22.57	0.00	1.11	8.01	6.74	21.04	6.73	6.75	6.77	6.74	6.73	6.75	13.93	7.91	27.98	0	3.02	84.55	14.13	1.90	15.92	3.32	22.03	8.06	3.84	6.11	6.01	6.26	6.25	1.17	
Train	20211117	ACTIVE	5.36	23.47	22.58	15.33	58.61	1.47	4.88	44.92	6.93	24.42	0.00	1.12	7.95	6.73	14.10	6.73	6.75	6.75	6.74	6.73	6.73	13.66	7.88	27.78	0	3.02	29.93	9.54	1.91	13.70	3.25	21.23	3.89	4.84	6.15	6.01	6.14	6.35	1.10	
Test	20211118	ACTIVE	5.97	11.78	11.35	13.33	14.21	1.47	4.81	4.97	6.94	24.18	0.00	1.11	8.12	6.73	20.55	6.74	6.74	6.75	6.74	6.74	6.74	13.66	7.88	21.26	0	3.02	29.55	4.31	1.88	12.86	3.20	21.01	3.63	3.89	6.26	6.21	6.28	6.38	1.34	
Test	20211119	ACTIVE	5.54	11.83	11.15	13.41	14.22	1.47	4.91	3.64	6.92	24.12	0.00	1.11	8.07	6.73	20.25	6.73	6.75	6.76	6.74	6.73	6.73	13.64	7.87	21.08	0	3.02	29.57	4.10	1.85	12.70	3.21	20.92	1.37	3.82	6.14	6.00	6.13	6.33	1.12	
Test	20211122	ACTIVE	5.62	9.35	14.91	13.49	14.47	15.10	58.72	6.94	24.12	0.00	1.12	8.15	6.73	20.72	6.71	6.71	6.72	6.74	6.72	6.72	6.71	13.64	7.87	22.20	0	3.02	78.49	9.49	1.82	13.54	3.22	21.26	3.82	3.87	6.13	6.05	6.39	6.38	1.12	
Test	20211123	ACTIVE	6.28	11.53	10.46	15.34	13.58	1.41	7.82	58.50	7.10	24.76	0.00	1.15	8.12	6.89	20.72	6.88	6.87	6.90	6.91	6.89	6.88	13.90	8.07	26.72	0	3.09	74.48	11.61	1.85	12.97	3.33	28.15	5.24	3.93	6.25	6.18	6.37	6.59	1.06	
Test	20211124	ACTIVE	6.74	11.22	10.28	14.61	13.34	1.47	4.90	17.54	6.93	24.88	0.08	1.10	7.96	6.73	20.23	6.73	6.73	6.74	6.75	6.74	6.73	13.90	8.08	21.73	0	3.01	23.02	6.47	1.86	12.57	3.29	27.77	4.74	4.11	6.10	6.23	6.46	6.34	1.03	
Test	20211125	ACTIVE	5.76	11.37	10.25	16.00	14.08	1.55	5.15	34.63	6.94	24.23	0.00	1.09	8.07	6.73	20.68	6.73	6.73	6.76	6.76	6.76	6.74	6.73	20.56	7.88	21.17	0	3.03	22.86	5.75	1.90	14.36	3.30	21.16	6.04	5.75	6.10	6.18	6.30	6.31	1.18
Test	20211126	ACTIVE	5.74	16.24	14.83	20.22	17.21	0.52	3.26	148.99	9.20	32.01	0.00	1.65	11.30	8.93	26.73	8.93	8.94	8.92	8.95	8.97	8.94	18.23	10.45	42.15	30	4.05	39.26	19.26	2.47	17.65	5.69	29.41	21.2	6.21	8.18	8.72	8.65	8.37	1.56	
Test	20211206	ACTIVE	6.50	11.06	10.68	15.59	15.76	1.56	24.18	33.81	6.94	32.40	0.00	1.09	8.79	6.73	18.50	6.75	6.73	6.74	6.74	6.78	6.73	13.81	7.88	18.93	0	2.97	69.60	11.83	1.77	12.83	3.31	21.78	0.77	4.66	6.08	6.32	6.55	6.55	1.20	
Test	20211207	ACTIVE	5.66	10.97	10.55	15.57	14.44	1.52	4.88	41.61	6.93	27.73	0.00	1.09	6.53	6.73	14.97	2.72	6.27	6.27	2.67	2.67	2.67	15.55	7.89	29.16	1805	3.02	27.10	9.89	1.82	14.18	3.31	21.62	0.43	11.62	6.73	6.25	6.68	6.78	1.05	
Test	20211223	ACTIVE	6.26	11.73	11.49	13.33	13.63	1.32	13.70	29.37	6.94	25.18	0.00	1.12	8.03	6.74	14.31	1.04	0.98	0.98	1.05	0.98	0.97	0.98	5.44	7.91	39.17	0	3.02	89.40	9.71	1.79	12.85	3.46	21.97	0.51	3.89	6.64	6.07	6.39	6.34	1.06
Train	20211223	ACTIVE	5.68	16.13	11.76	14.88	14.39	1.46	13.16	23.09	6.93	25.21	0.00	1.08	8.01	6.72	19.71	6.75	6.72	6.72	6.72	6.72	6.72	13.57	7.90	17.00	0	3.02	16.77	7.10	1.88	12.95	3.20	21.15	0.71	11.82	6.80	6.67	6.75	6.35	1.04	
Train	20211228	ACTIVE	5.45	11.56	11.93	13.30	15.07	1.46	8.51	23.50	6.92	24.60	0.00	1.07	8.45	6.72	13.55	6.75	6.72	6.72	6.72	6.72	6.72	13.52	7.89	19.59	0	3.02	24.72	5.67	1.81	7.08	3.23	21.19	0.61	44.11	6.79	6.68	6.64	6.17	1.10	
Train	20211228	ACTIVE	5.59	11.72	9.36	14.45	13.35	1.50	4.91	2.75	6.93	25.43	0.00	1.08	8.07	6.73	13.53	6.75	6.73	6.73	6.73	6.73	6.73	13.52	7.86	16.75	0	3.00	25.41	4.74	1.68	7.07	3.16	20.91	0.48	4.92	6.68	6.37	6.61	6.60	1.39	
Test	20211102	IDLE	7.92	8.94	8.90	19.26	12.1-47	2.00	6.85	3.82	9.34	32.99	0.00	1.46	11.04	9.26	29.43	9.25	9.26	9.20	9.27	9.25	9.26	20.23	10.84	28.76	0	4.15	6.63	7.35	2.47	17.05	4.79	28.62	0.35	6.89	8.00	8.70	8.82	9.08	1.42	
Test	20211103	IDLE	7.85	9.09	9.11	18.78	19.42	2.05	6.83	3.82	9.32	33.06	0.00	1.46	11.12	9.26	30.55	9.26	9.27	9.28	9.20	9.27	9.26	20.25	10.83	28.81	0	3.66	6.48	7.27	2.46	16.93	4.70	28.64	0.20	6.82	9.06	8.71	8.95	9.07	1.42	
Test	20211104	IDLE	8.60	9.32	9.36	18.90	19.41	2.09	6.89	3.94	9.31	34.96	0.00	1.47	11.23	9.26	22.58	9.27	9.26	9.26	9.26	9.26	9.26	19.78	10.85	28.76	0	3.80	7.69	7.69	2.53	16.88	4.73	28.60	0.24	6.90	8.84	8.88	8.56	1.51		
Test	20211108	IDLE	7.97	15.31	15.73	17.53	19.50	2.05	6.81	3.81	9.55	35.11	0.00	1.52	10.97	9.27	22.63	9.26	9.25	9.27	9.27	9.26	9.26	19.07	10.85	28.78	0	4.15	20.06	5.12	2.51	16.89	4.69	28.64	0.05	6.82	9.11	8.36	9.11	8.36	1.52	
Test	20211110	IDLE	8.43	15.27	15.38	19.42	17.88	1.98	6.84	51.55	9.54	34.98	0.00	1.48	11.27	9.25	31.72	9.25	9.25	9.27	9.27	9.27	9.26	19.07	10.85	29.00	0	4.15	8.06	5.17	2.51	17.11	4.68	28.63	3.87	6.86	8.39	8.30	9.12	8.93	1.43	
Test	20211112	IDLE	8.53	15.11	14.88	17.22	17.35	2.00	6.80	47.37	9.54	34.99	0.00	1.47	11.01	9.25	40.40	9.25	9.25	9.27	9.28	9.28	9.25	18.83	10.82	28.81	0	4.15	11.71	5.12	2.55	24.88	4.72	28.64	3.30	6.93	8.41	8.40	9.03	8.70	1.43	
Test	20211115	IDLE	7.44	16.37	15.87	17.82	18.01	1.99	10.25	3.95	9.55	22.25	0.00	1.48	11.08	9.26	28.80	9.26	9.25	9.29	9.30	9.29	9.28	18.84	10.82	28.50	0	4.12	41.22	5.11	2.58	24.87	4.65	28.63	1.41	5.91	8.48	8.38	8.72	8.83	1.43	
Test	20211116	IDLE	7.50	16.56	15.58	17.92	18.09	1.99	6.81	3.84	9.54	34.99	0.00	1.50	1																											